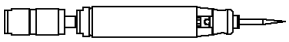
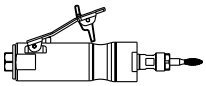
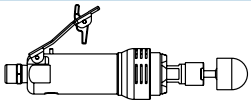
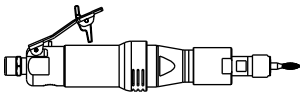
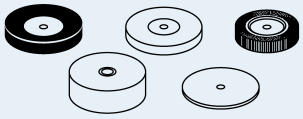
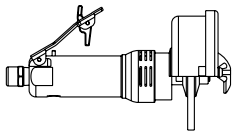
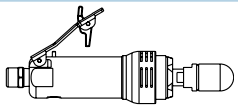
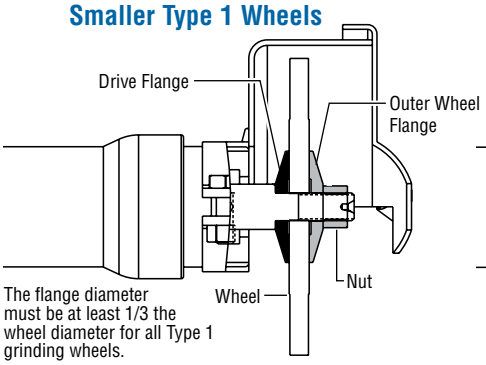
Die Grinders

Page Number	Model Number	Power	Motor Style	Description	
66	20G	0.1 H.P.	Non-Governed	Die Grinders with Fixed Size Collet Output 	
70	250GE/250HGE	0.4 H.P.	Non-Governed	Die Grinders with Insert Style Collet Output 	
70	300GE/300HGE	0.7 H.P.			
70	400GE/400HGE	1.2 H.P.	Non-Governed		
70	400SH/400SH+6		Governed		
68	400GT	1.2 H.P.	Non-Governed	Type 1 Wheel Grinders for Material Removal or Surface Conditioning 	
68	407GT		Governed		
67	400GTCW	1.2 H.P.	Non-Governed	Cone Wheel Grinders for Material Removal 	

Mounting of Wheels

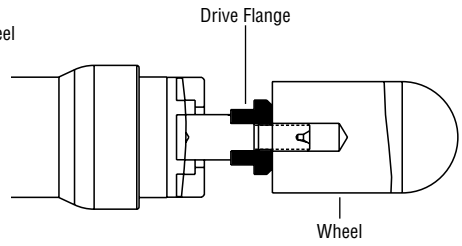
Proper Mounting of Smaller Type 1 Wheels



The flange diameter must be at least 1/3 the wheel diameter for all Type 1 grinding wheels.

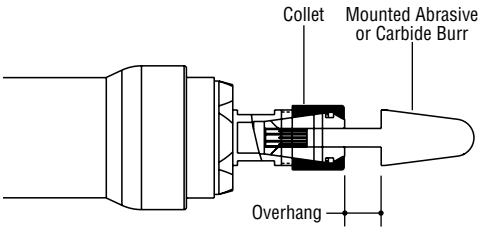
The flange diameter must be at least 1/4 the wheel diameter for all Type 1 cut-off (Type 41) wheels.

Proper Mounting of 3/8-24 Cone Wheels



The drive flange diameter must be at least 1/3 the wheel diameter for all cone wheels.

Proper Mounting of Inserted Tooling (Burrs/Mounted Stones)



Overhang is the distance between the grinder chuck and the abrasive on the spindle. The larger the overhang, the lower the maximum safe operating speed.

For more information regarding the use of tool and abrasive wheels please consult the Safety Code For Portable Air Tools, ANSI B186.1, B7.1 and Z87.1, available from American National Standards Institute, Inc. 1430 Broadway, New York, NY 10018

Lever Style

Case Material

The choice of case material affects the weight and durability of the tool. By it's nature, aluminum is lighter in weight than steel. Steel is more durable in aggressive environments.

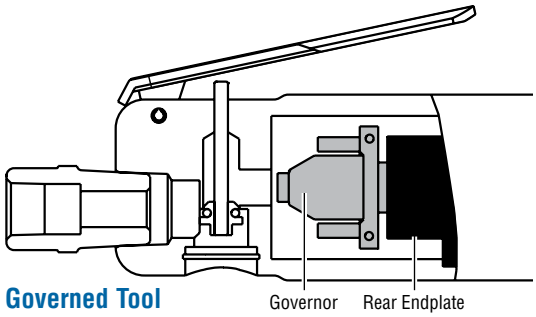
Speed/Guard Size Selection

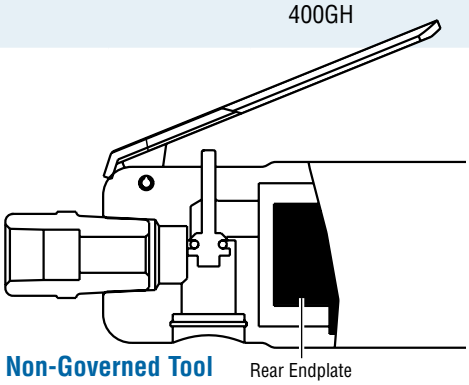
The operating speed and guard size are closely linked to promote safety and maximize efficiency of the grinding operation. Each model offers various options listed in the Model Number Breakdown and in the chart with each product spread. The choices are based on the characteristics of each model. Please examine the speed/guard size options to select the one that matches the wheel speed/size you are using.

Governed vs. Non-Governed Tools

A governor on a tool will help to maintain a high level of torque at lower operating speeds. If your application requires a lower operating speed, then a governor may be to your benefit. Tools set to higher rated speeds will not benefit from the use of a governor. The following chart will act as a guide based on the operating speed required by your application.

	Speeds Normally Deemed for Surface Finishing Abrasives			4 Inch Type 1 Wheels	Speeds Normally Deemed for Burrs/Mounted Stones & Small Cut-off Wheels				
R.P.M.	**12000**	**13000**	**14000**	**15000**	**16000**	**17000**	**18000**	**19000**	**20000**
1.2 H.P.		407GH					400GH		





Die Grinders

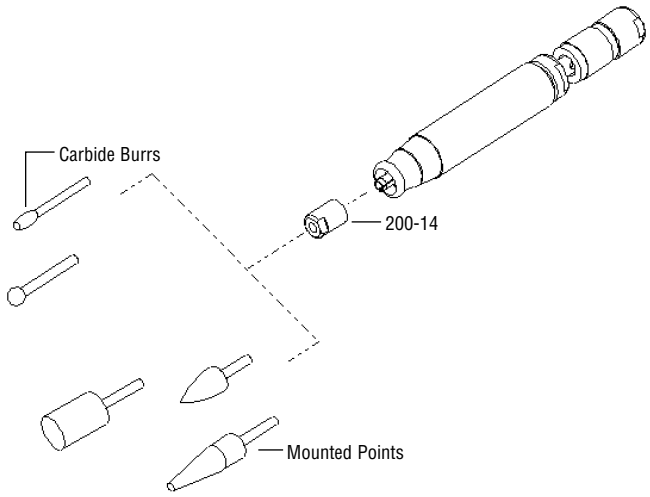
0.1 H.P. (75 W) • 60000 R.P.M.

Air Inlet Size: 1/8" NPT
Hose Size Recommendations: 1/4" (6 mm)
Extra Charge Accessories

- Accessory Kit

Standard Equipment

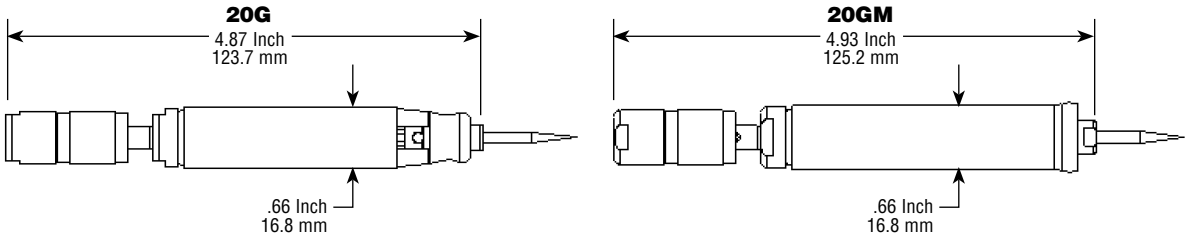
- Tool
- Operating Instructions and Service Manual
- 9/32" Wrench
- Lock Pin
- 3 Foot Length of Hose



Quick Order Number

Model Number	Exhaust Direction	Collet Size	Maximum Operating Speed	Ordering Number
20G	Side	1/8	60000 RPM	20G
20GM	Front			20GM

This chart has been provided as a means to quickly identify a particular tool. The ordering numbers listed represent the most common versions of our tools. If more specialized versions are required, please build your model number per the following model number flow chart.



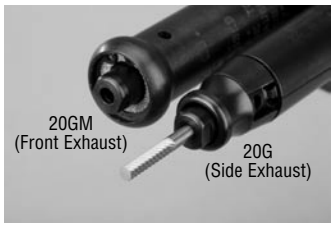
0.1 H.P. (75 W)

0.3 Lb. (0.1 Kg)

8.0 cfm (3.8 L/s) Max

Example Model Number: **20G M ; 60000 ; 1/8**

Model Number	Exhaust Direction	Operating Speed	Collet Size
	The blue highlighted entries are shown in the Quick Reference Box above.		
20G	*Please choose one of the following options:* **No Designation** - Side Exhaust **M** - Front Exhaust	**60000** : 60000 R.P.M.	*Please choose one of the following options:* **1/8** - 1/8 Inch Collet **3MM** - 3mm Collet



WARNING: Follow all recommendations from component and abrasive manufacturers for speeds and proper usage.

Die Grinders for 3/8" Cone Wheels

1.2 H.P. (900 W)

Air Inlet Size: 3/8" NPT

Hose Size Recommendations: 1/2"

Extra Charge Accessories

- Safety Lever

Standard Equipment

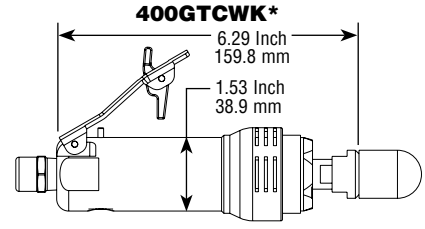
- Tool • Wrench • Operating Instructions and Service Manual

Quick Order Number

This chart has been provided as a means to quickly identify a particular tool. The ordering numbers listed represent the most common versions of our tools. If more specialized versions are required, please build your model number per the following model number flow chart.

Model Number	Power	Spindle Size	Maximum Operating Speed	Throttle Handle Type	
				Standard	Safety
400GTCW	1.2 H.P.	3/8-24 X 0.58 Inch	20000 RPM	400GTSCW	400GTSKCW

The tools listed in the above chart are designated with steel case material and side exhaust. Please consult the Model Breakdown section below if alternative options are desired.



*Rear exhaust adds 0.82 Inch (20.8mm) to overall length.

1.2 H.P.
(900 W)

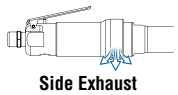
1.5 Lb. (0.7 Kg) Aluminum
1.7 Lb. (0.8 Kg) Steel

35 cfm (16.5 L/s) Max

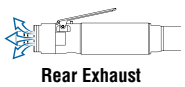
Example Model Number: **400GT K S R ; 20000**

The blue highlighted entries are shown in the Quick Reference Box above.

Model Number	Lever Style	Case Material	Exhaust Direction	Operating Speed
400GTCW	*Please choose one of the following options:* **No Designation** - Standard Lever **K** - Safety Lever	*Please choose one of the following options:* **No Designation** - Aluminum Case **S** - Steel Case	*Please choose one of the following options:* **No Designation** - Side Exhaust **R** - Rear Exhaust	**18000** - 18000 R.P.M. **20000** - 20000 R.P.M.



Side Exhaust



Rear Exhaust

WARNING: Follow all recommendations from component and abrasive manufacturers for speeds and proper usage.

Die Grinders For Type 1 Wheels, Flap Wheels And Wire Wheels

*For surface conditioning abrasives or internal use only.

Air Inlet Size: 3/8" NPT
Hose Size Recommendations: 1/2" (13 mm)
Extra Charge Accessories

• Cone Wheel Adapters • Heavy-Duty 2-pc. Collets • Safety Lever

Standard Equipment

• Tool • Operating Instructions and Service Manual
• 2 Wrenches (sizes based on options)

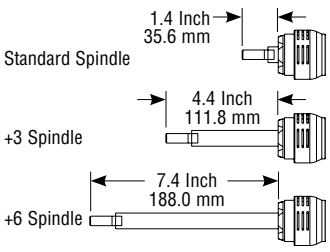
Quick Order Number

This chart has been provided as a means to quickly identify a particular tool. The ordering numbers listed represent the most common versions of our tools. If more specialized versions are required, please build your model number per the following model number flow chart.

Model Number	Power	Guard Size	Maximum Operating Speed	Throttle Handle Type	
				Standard	Safety
400GT	1.2 H.P.	3 Inch	18000 RPM	400GTS4;301	400GTS4K;301
407GT		4 Inch	15000 RPM	407GTS4;401	407GTS4K;401

The tools listed in the chart to the left are designated with steel case material and side exhaust. Please consult the Model Breakdown section below if alternative options are desired.

Spindle Comparison For 400GT & 407GT

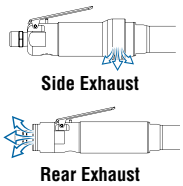


Extended spindles are not for grinding wheels.

Example Model Number: **407GT K S R ; 15000;401**

The blue highlighted entries are shown in the Quick Reference Box above.

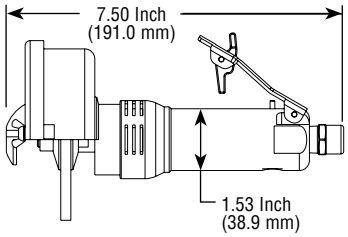
Model Number	Lever Style	Case Material	Exhaust Direction	Operating Speed
400GT	*Please choose one of the following options:* **No Designation** - Standard Lever **K** - Safety Lever	*Please choose one of the following options:* **No Designation** - Aluminum Case **S** - Steel Case	*Please choose one of the following options:* **No Designation** - Side Exhaust **R** - Rear Exhaust	*Please choose one of the following options:* **18000;301** - 18000 R.P.M. with 3 Inch T1 Guard **+3;18000** - 18000 R.P.M. with +3 Extended Spindle **+6;18000** - 18000 R.P.M. with +6 Extended Spindle
407GT			Side Exhaust	*Please choose one of the following options:* **15000;401** : 15000 R.P.M. with 4 Inch T1 Guard **+3;15000** - 15000 R.P.M. with +3 Extended Spindle **+6;15000** - 15000 R.P.M. with +6 Extended Spindle



Governor Controlled Tool

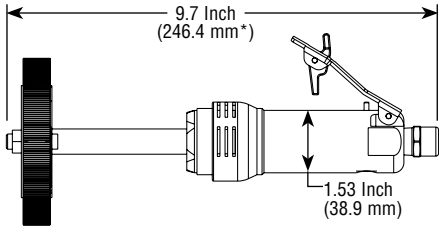
400GT(+3)(+6) for use with flap wheel or internal use only.
***Rear exhaust adds 0.82 Inch (20.8mm) to overall length.**

400GTK*



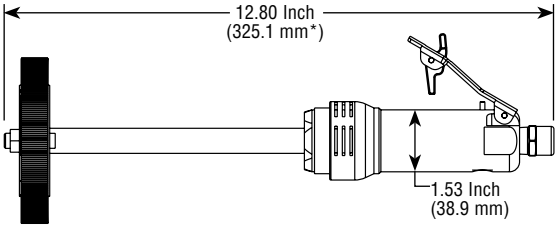
1.2 H.P. (900 W)
2.6 Lb. (1.2 Kg) Aluminum
3.3 Lb. (1.5 Kg) Steel
35 cfm (16.5 L/s) Max

400GTK+3*



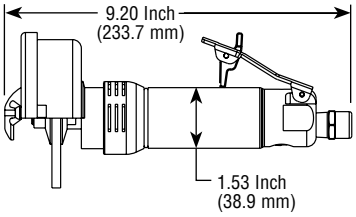
1.2 H.P. (900 W)
2.6 Lb. (1.2 Kg) Aluminum
3.3 Lb. (1.5 Kg) Steel
35 cfm (16.5 L/s) Max

400GTK+6*



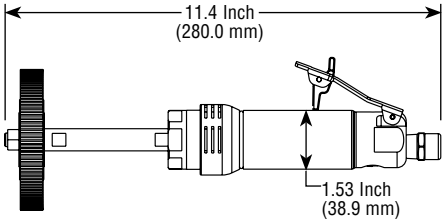
1.2 H.P. (900 W)
2.8 Lb. (1.3 Kg) Aluminum
3.5 Lb. (1.6 Kg) Steel
35 cfm (16.5 L/s) Max

407GTK



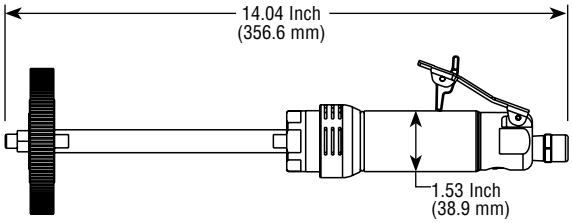
1.2 H.P. (900 W)
2.8 Lb. (1.3 Kg) Aluminum
3.5 Lb. (1.6 Kg) Steel
20 cfm (9.4 L/s) Free Speed
35 cfm (16.5 L/s) Max

407GTK+3



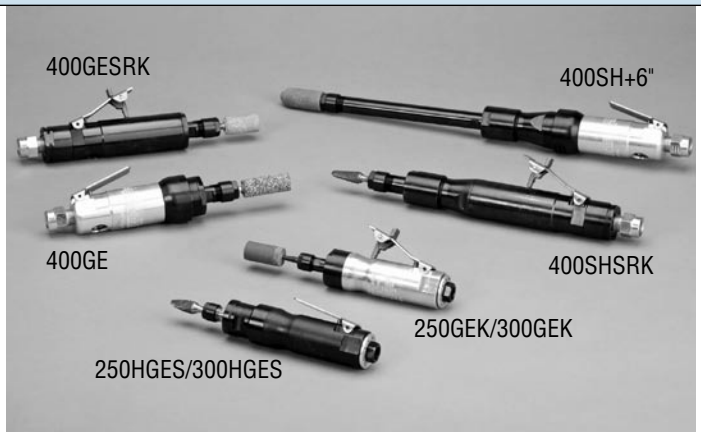
1.2 H.P. (900 W)
2.8 Lb. (1.3 Kg) Aluminum
3.5 Lb. (1.6 Kg) Steel
20 cfm (9.4 L/s) Free Speed
35 cfm (16.5 L/s) Max

407GTK+6



1.2 H.P. (900 W)
2.9 Lb. (1.3 Kg) Aluminum
3.6 Lb. (1.6 Kg) Steel
20 cfm (9.4 L/s) Free Speed
35 cfm (16.5 L/s) Max

Insert Style Die Grinders For Carbide Burrs & Mounted Stones



Air Inlet Size:
250GE/250HGE/300GE/300HGE: 1/4" NPT
400GE/400HGE: 3/8" NPT

Hose Size Recommendations:
250GE/250HGE/300GE/300HGE: 3/8" (10mm)
400GE/400HGE: 1/2" (13mm)

Extra Charge Accessories
- Safety Lever

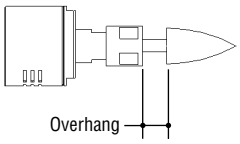
Standard Equipment
- Tool • Operating Instructions and Service Manual
- 2 Wrenches (sizes based on options)

Quick Order Number

This chart has been provided as a means to quickly identify a particular tool. The ordering numbers listed represent the most common versions of our tools. If more specialized versions are required, please build your model number per the following model number flow chart.

Model Number	Power	Collet Size	Maximum Operating Speed	Throttle Handle Type	
				Standard	Safety
The tools listed below are designated with aluminum case material and rear exhaust. Please consult the Model Breakdown section below if alternative options are desired.					
250GE	0.4 H.P.	1/4	40000 RPM	250GE;1/4	250GEK;1/4
250HGE				250HGE;1/4	250HGEK;1/4
300GE	0.7 H.P.		30000 RPM	300GE;1/4	300GEK;1/4
300HGE				300HGE;1/4	300HGEK;1/4
The tools listed below are designated with steel case material and side exhaust. Please consult the Model Breakdown section below if alternative options are desired.					
400GE	1.2 H.P.	1/4	20000 RPM	400GES;1/4	400GESK;1/4
400HGE				400HGES;1/4	400HGESK;1/4

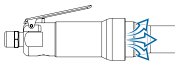
Overhang is the distance between the grinder chuck and the abrasive on the spindle. The larger the overhang, the lower the maximum safe operating speed.

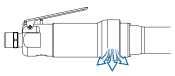


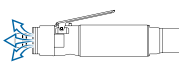
Example Model Number: **300GE K S F ; 28000 ; 1/4**

The blue highlighted entries are shown in the Quick Reference Box above.

Model Number	Lever Style	Case Material	Exhaust Direction	Operating Speed	Collet Size
250GE 250HGE 300GE 300HGE 400GE 400HGE 400SH 400SH+6	*Please choose one of the following options:* **No Designation** - Standard Lever **K** - Safety Lever	*Please choose one of the following options:* **No Designation** - Aluminum Case **S** - Steel Case	*Please choose one of the following options:* **No Designation** -Rear Exhaust **F** - Front Exhaust	**40000** : 40000 R.P.M **30000** : 30000 R.P.M	*Please choose one of the following options:* **1/8** - 1/8 Inch Collet **1/4** - 1/4 Inch Collet **3/8** - 3/8 Inch Collet **3MM** - 3mm Collet **6MM** - 6mm Collet **8MM** - 8mm Collet
			Please choose one of the following options: **No Designation** - Side Exhaust **R** - Rear Exhaust **F** - Front Exhaust	**18000** : 18000 R.P.M **20000** : 20000 R.P.M	


Front Exhaust

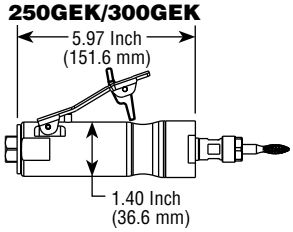

Side Exhaust


Rear Exhaust

WARNING: Follow all recommendations from component and abrasive manufacturers for speeds and proper usage.

Insert Style Collets
0.4–1.2 H.P. (300–900 W)

250GEK/300GEK

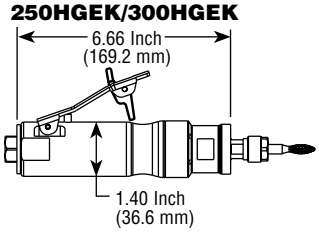


250GE: 0.4 H.P. (300 W)
300GE: 0.7 H.P. (525 W)

	Aluminum	*Steel*
250GE -	1.1 Lb. (0.5 Kg)	1.6 Lb. (0.7 Kg)
300GE -	1.2 Lb. (0.5 Kg)	1.7 Lb. (0.8 Kg)

250GE: 18 cfm (8.5 L/s) Max.
300GE: 25 cfm (11.8 L/s) Max.

250HGEK/300HGEK

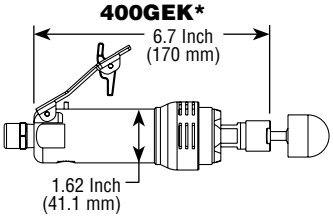


250HGE: 0.4 H.P. (300 W)
300HGE: 0.7 H.P. (525 W)

	Aluminum	*Steel*
250HGE -	1.2 Lb. (0.7 Kg)	1.7 Lb. (0.8 Kg)
300HGE -	1.3 Lb. (0.6 Kg)	1.9 Lb. (0.9 Kg)

250HGE: 18 cfm (8.5 L/s) Max.
300HGE: 25 cfm (11.8 L/s) Max.

400GEK*



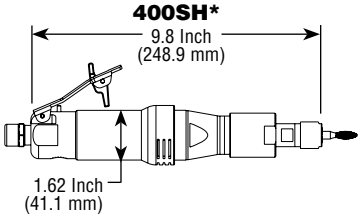
***Rear exhaust adds 0.82 Inch (20.8mm) to overall length.**

1.2 H.P.
(900 W)

1.7 Lb. (0.8 Kg) Aluminum
2.5 Lb. (1.1 Kg) Steel

35 cfm (16.5 L/s) Max.

400SH*



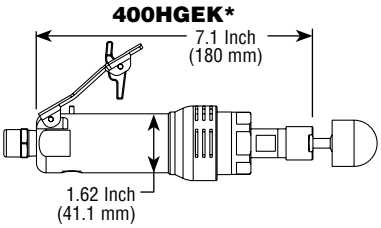
***Rear exhaust adds 0.82 Inch (20.8mm) to overall length.**

1.2 H.P.
(900 W)

2.4 Lb. (1.1 Kg) Aluminum
3.3 Lb. (1.5 Kg) Steel

35 cfm (16.5 L/s) Max.

400HGEK*



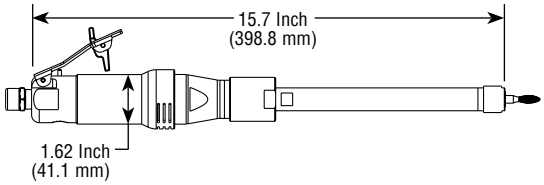
***Rear exhaust adds 0.82 Inch (20.8mm) to overall length.**

1.2 H.P.
(900 W)

1.8 Lb. (0.8 Kg) Aluminum
2.5 Lb. (1.1 Kg) Steel

35 cfm (16.5 L/s) Max.

400SH+6*



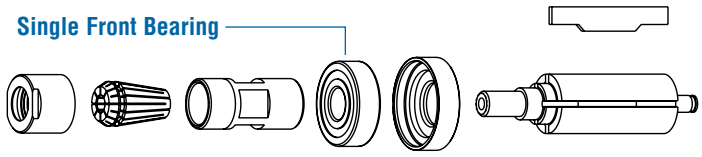
***Rear exhaust adds 0.82 Inch (20.8mm) to overall length.**

1.2 H.P.
(900 W)

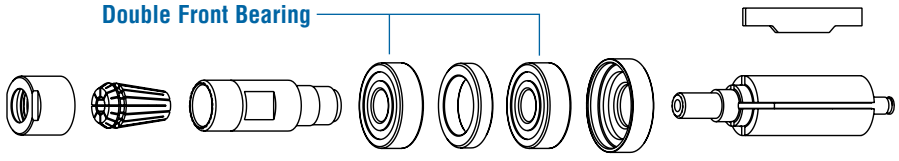
3.2 Lb. (1.4 Kg) Aluminum
4.1 Lb. (1.9 Kg) Steel

35 cfm (16.5 L/s) Max.

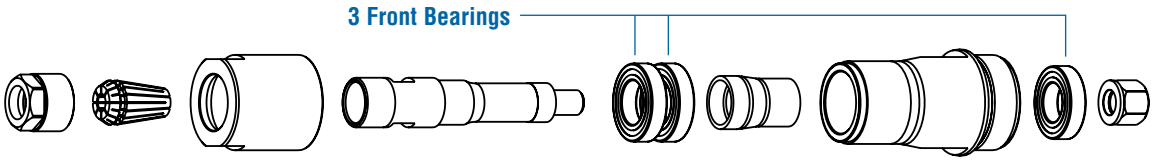
250GE
300GE
400GE



250HGE
300HGE
400HGE



400SHD
400SHD+6



Extreme Duty