



EXCAVATOR AUGERS



FOR USE ON THE FOLLOWING CARRIES
Excavators

 **PENGO®**

PENGO AUGER SOIL CHART

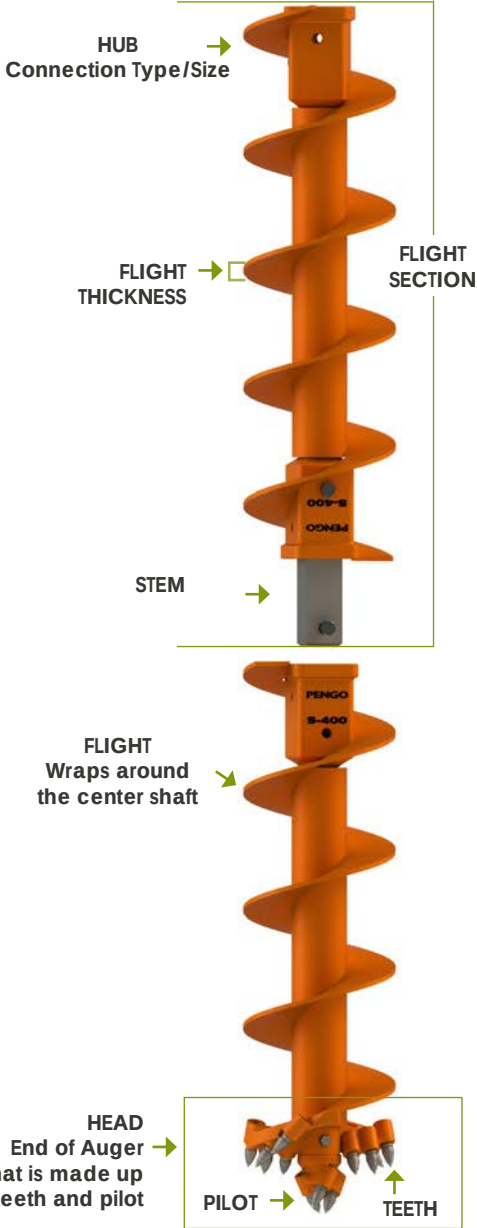
Pengo has developed the chart below to help you decide which auger will be best suited for your project. The above triangles and color guide will be included with all products where applicable.



1	dirt; peat, organic silts, very loose sand, very soft, swamp, marsh	soil abrasion: low
2	sand; loose, fine sand; loess and medium clay, flood plain soils, lake clay	soil abrasion: medium
3	silt; coarse sand to stiff clay, dense hydraulic fill, compacted fill, residual soils	soil abrasion: high
4	clay; stiff to very stiff clay, glacial till, hard-pan, marls	soil abrasion: low to medium
5	gravel; basalt, very hard silts and clay, weathered laminated rock	soil abrasion: high
6	fracturable rock; caliche, coarse gravel and cobbles; frozen soil	soil abrasion: high
7	non-fracturable rock; granite, basalt, massive limestone	soil abrasion: high

PENGO GP AUGERS

Pengo will commonly refer to the "parts" of the auger to help determine which one is suitable to your needs. Please use the diagram to the right as a reference guide when determining out the auger you would like quoted.



Carrier	Auger(s) Compatible
 Excavator	Excavator Quick Change and Excavator Augers

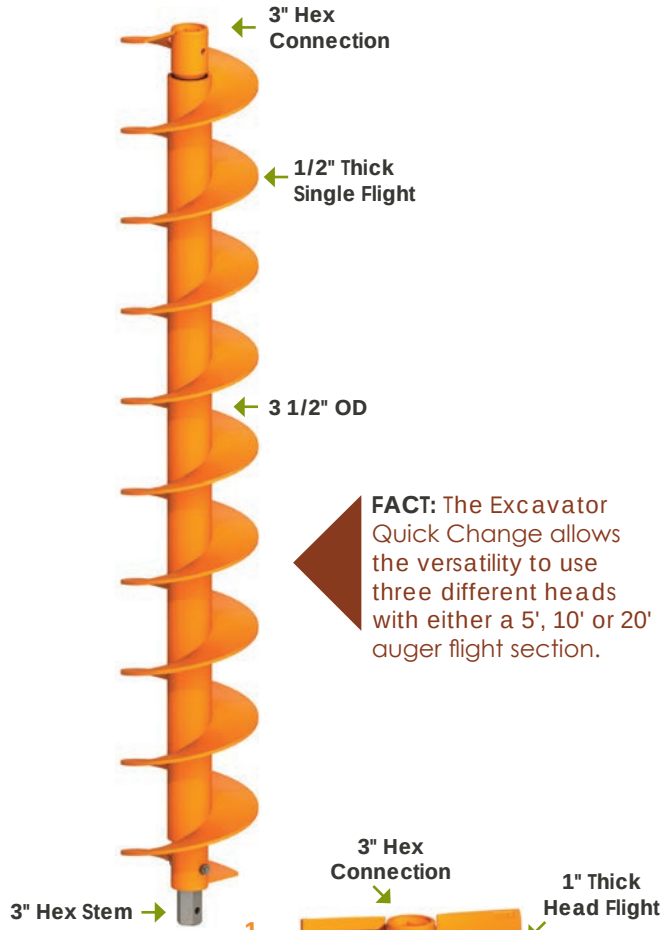
EXCAVATOR QUICK CHANGE



Use with Revolution Series Drives: DV-20

FLIGHT SECTION LENGTHS AVAILABLE:

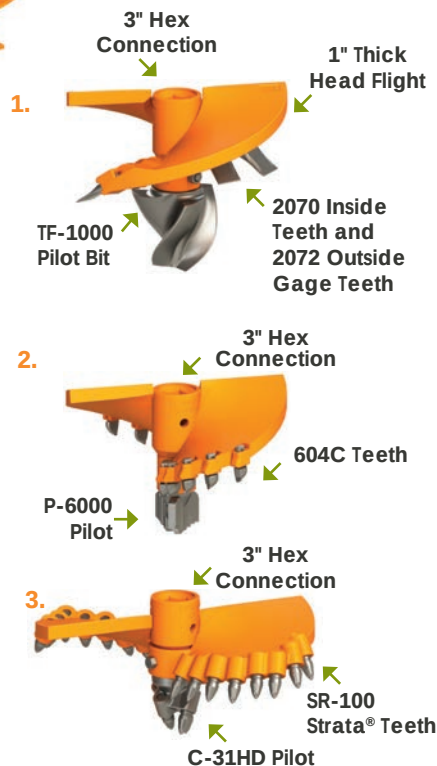
5', 10' and 20'



FACT: The Excavator Quick Change allows the versatility to use three different heads with either a 5', 10' or 20' auger flight section.

AVAILABLE OPTIONS:

1. **Standard Dirt**
TF-1000 Pilot,
2070Band
2072 Fas-N-Lok®
Teeth
2. **Step Rock**
P-6000 Pilot
and
604C Drag
Style Tooth
3. **Rock Option**
C31-HD Pilot
and
SR-100 STRATA®
Conical Teeth



CONNECTIONS



AUGER DIAMETERS

16" 18" 20" 24" 30" 36" 42"

CUT DIAMETER

NOTE: Excavator Augers are True Cut, cut and tool diameter are equal

DRILLING SOIL CONDITIONS:



Pengo's Excavator Quick Change system is the perfect solution for turning your excavator into a dedicated drilling machine. Regardless of excavator brand or size our quick change system provides maximum flexibility and customization for a tailored made installation. Each system is a total package designed to match your excavator specifications. Featuring Revolution hydraulic drive heads, your choice between end of stick or quick connect mounting systems, multiple length flight bodies, and (3) separate drill head options, you can drill effectively in all soil conditions, from dirt to rock, both fracturable and non-fracturable

EXCAVATOR AUGERS

EXC QUICK CHANGE AUGER



FLIGHT SECTIONS | 3" Hex Connection

ITEM	DIA	LBS	5' PN	LBS	10' PN	LBS	20' PN
FEX-16	16"	275	165442	490	165450		165451
FEX-18	18"	335	165443	870	165452		165453
FEX-20	20"	400	165444	660	165454		165455
FEX-24	24"	470	165445	1000	165456	1816	165457
FEX-30	30"	480	165446	914	165458		165459
FEX-36	36"	610	165447	1170	165460		165461
FEX-42	42"	760	165448	1246	165462		165463
FEX-48	48"	935	165449	1325	165464		165465

TF-1000
LBS | 43
PN | 137348
2.5 Pilot Adapter
PN | 151598

OPTION 1

2070 Dirt	2072 Gage
LBS 2	LBS 2.3
PN 140002	PN 140000

HEADS | 3" Hex Stem

DIRT | TF-1000 Pilot Bit

OPTION 1

ITEM	DIA	2070 TEETH	LBS	PN
POEXDH-16	16"	0	136	165470
POEXDH-18	18"	1	155	165472
POEXDH-20	20"	2	185	165474
POEXDH-24	24"	3	206	165476
POEXDH-30	30"	4	249	165478
POEXDH-36	36"	6	333	165480
POEXDH-42	42"	8	322	165482
POEXDH-48	48"	10	426	165484

All dirt heads include two 2072 outside gage teeth.

CARBIDE | TF-1000HFTC Pilot Bit

OPTION 1

ITEM	DIA	2077 TEETH	LBS	PN
POEXDH-16	16"	0	135	165471
POEXDH-18	18"	1	155	165473
POEXDH-20	20"	2	185	165475
POEXDH-24	24"	3	207	165477
POEXDH-30	30"	4	249	165479
POEXDH-36	36"	6	340	165481
POEXDH-42	42"	8	325	165483
POEXDH-48	48"	10	427	165485

All carbide heads include two 2078 outside gage teeth.

OPTION 1

TF-1000 HFTC	2077
LBS 46	LBS .7
PN 137354	PN 140003

2078	2079
LBS 1	LBS 3.3
PN 140004	PN 140001

STEP ROCK | P-6000 Pilot Bit

OPTION 2

ITEM	DIA	604C TEETH	LBS	PN
POEXSRH-16	16"	8		165490
POEXSRH-18	18"	9		165492
POEXSRH-20	20"	10		165494
POEXSRH-24	24"	12	123	165496
POEXSRH-30	30"	15		165498
POEXSRH-36	36"	18		165500
POEXSRH-42	42"	21		165502
POEXSRH-48	48"	24		165504

ROCK | C-31HD Pilot Bit

OPTION 3

ITEM	DIA	SR100 TEETH	LBS	PN
POEXRRH-16	16"	8	120	165510
POEXRRH-18	18"	9	125	165512
POEXRRH-20	20"	11	186	165514
POEXRRH-24	24"	12	265	165516
POEXRRH-30	30"	17	206	165518
POEXRRH-36	36"	20	320	165520
POEXRRH-42	42"	24	410	165522
POEXRRH-48	48"	28	346	165524

All C31HD pilots assemblies include 4 STRATA® SR-100 conical teeth.

OPTION 2

P-6000	604C
LBS 8	LBS 1
PN 151275	PN 140065

Use Roll Pin PN 137615

OPTION 3

C31 HD w/stem	SR-100
LBS 30	LBS 1.1
PN 135913	PN 850023

DRIVE PINS

Pengo offers the following pins to use in connecting your CFA sections.



DP-2 2"	DP-3 2 1/2"	DP-4 3"	DP-5 4"
LBS .1	LBS .1	LBS .3	LBS .5
PN 157779	PN 157780	PN 157781	PN 157782

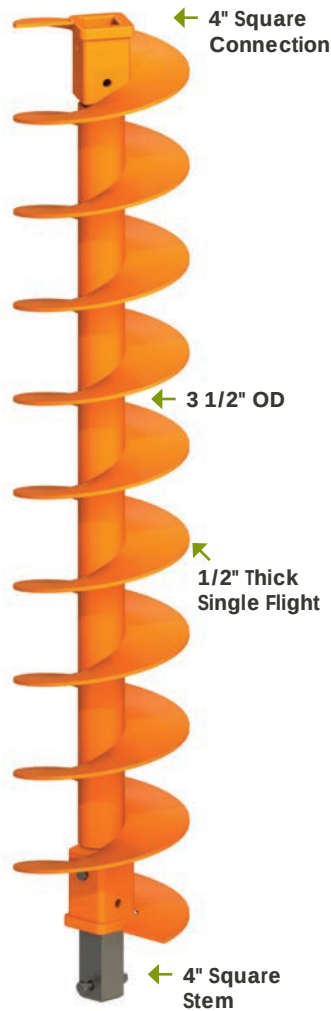
EXCAVATOR AUGER



Use with Revolution Series Drives: DV-30

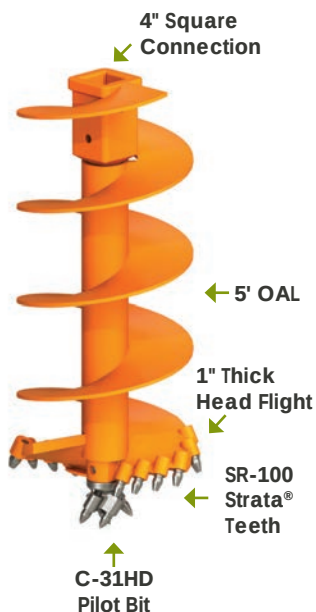
FLIGHT SECTION LENGTHS AVAILABLE:

5', 10' and 20'



LEAD SECTIONS:

5' OAL Rock or Dirt



CONNECTIONS

SQUARE 4"

AUGER DIAMETERS

16" 18" 20" 24" 30" 36" 42" 48"

CUT DIAMETER

NOTE: Excavator Augers are True Cut, cut and tool diameter are equal

DRILLING SOIL CONDITIONS:



Pengo continues to provide solutions for our customers. With the introduction of the Revolution Series Drilling drives came the need for a complete excavator auger system. This system is available for both rock and dirt drilling and come in five foot sections. Each five foot section attaches to a five foot, ten foot or twenty foot flight section.

EXCAVATOR AUGERS

EXCAVATOR AUGER



FLIGHT SECTIONS | 4" SQ Connection

ITEM	DIA	LBS	5' PN	LBS	10' PN	LBS	20' PN
FEX-16 X 5	16"	479	165759		165712		165719
FEX-18 X 5	18"	515	165762		165713		165720
FEX-20 X 5	20"	553	165763		165714		165721
FEX-24 X 5	24"	641	165764		165715		165722
FEX-30 X 5	30"	665	165765	1090	165592		165723
FEX-36 X 5	36"	731	165766	1295	165716		165724
FEX-42 X 5	42"	897	165767		165717		165725
FEX-48 X 5	48"	1090	165768	2015	165718		165726

DRIFT PUNCH

LBS | 3.5

PN | 137737

Soft Hammer

LBS | 3.5

PN | 137737



For Easy Removal of Teeth Use this Drift Punch

To prevent carbide on conical teeth from breaking, Pengo highly recommends using a soft hammer during installation of bullet teeth.

LEAD SECTION | 5' Dirt Section

ITEM	DIA	2070 TEETH	LBS	PN
DIRT LEAD	16"	0		165706
DIRT LEAD	18"	1		165707
DIRT LEAD	20"	2		165708
DIRT LEAD	24"	3		165585
DIRT LEAD	30"	4		165588
DIRT LEAD	36"	6		165709
DIRT LEAD	42"	8		165710
DIRT LEAD	48"	10		165711

All dirt heads include two 2072 outside gage teeth.

PARTS | for Dirt Lead Section

TF-1000
LBS | 43
PN | 137348

2070 Dirt
LBS | 2
PN | 140002

2072 Gage
LBS | 2.3
PN | 140000

2077
LBS | .7
PN | 140005

2078
LBS | 1
PN | 140006

2.5 Pilot Adapter
PN | 151598

2079
LBS | 3.3
PN | 140001

LEAD SECTION | 5' Rock Section

ITEM	DIA	SR100 TEETH	LBS	PN
ROCK LEAD	16"	8		165700
ROCK LEAD	18"	9		165701
ROCK LEAD	20"	11		165702
ROCK LEAD	24"	12		165584
ROCK LEAD	30"	17		165587
ROCK LEAD	36"	20		165703
ROCK LEAD	42"	24		165704
ROCK LEAD	48"	28		165705

PARTS | for Rock Lead Section

C31 HD w/stem
LBS | 30
PN | 135913

SR-100
LBS | 1.1
PN | 850023

S31HD
LBS | 1.1
PN | 850037

P30 Pocket
LBS | .7
PN | 990001

C30 Puller
LBS | 3
PN | 134090

The STRATA® Drilling Grade Teeth allow for drilling in extreme hard rock.

STRATA

Use the C30 Bit Puller to remove Conical Teeth with 1" Shank.

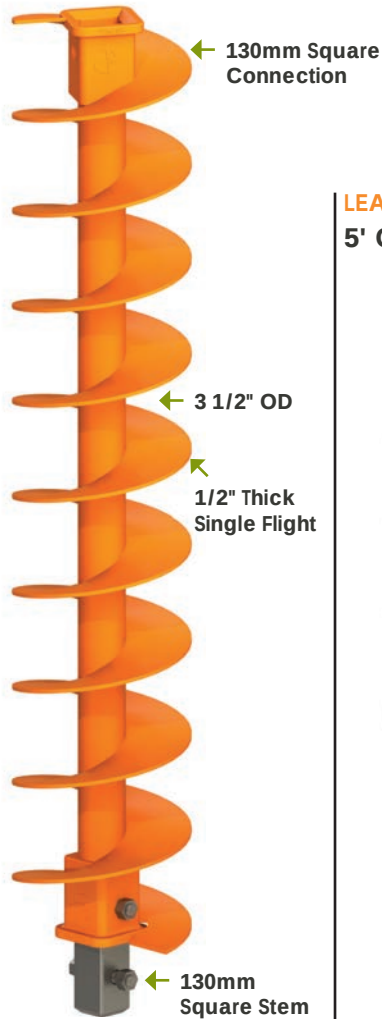
EXCAVATOR AUGER



Use with Revolution Series Drives: DV-40

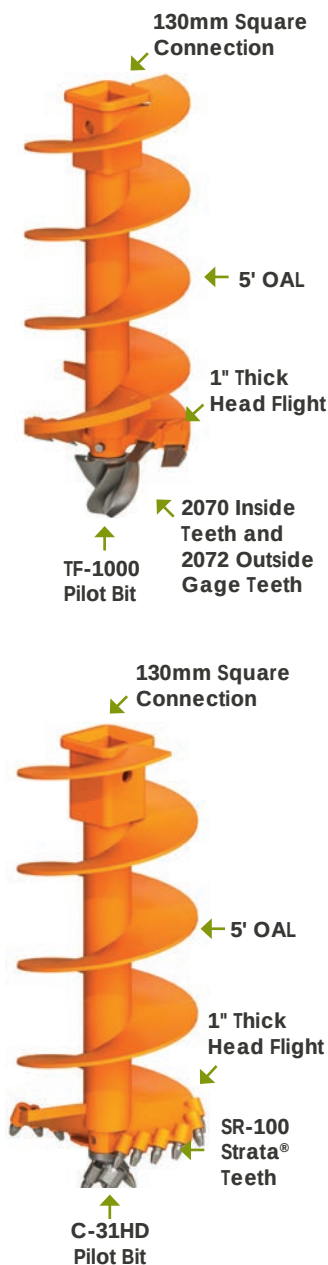
FLIGHT SECTION LENGTHS AVAILABLE:

5', 10' and 20'



LEAD SECTIONS:

5' OAL Rock or Dirt



CONNECTIONS



AUGER DIAMETERS

16" 18" 20" 24" 30" 36" 42" 48"

CUT DIAMETER

NOTE: Excavator Augers are True Cut, cut and tool diameter are equal

DRILLING SOIL CONDITIONS:



Pengo continues to provide solutions for our customers. With the introduction of the Revolution Series Drilling drives came the need for a complete excavator auger system. This system is available for both rock and dirt drilling and come in five foot sections. Each five foot section attaches to a five foot, ten foot or twenty foot flight section.

EXCAVATOR AUGERS

EXCAVATOR AUGER



FLIGHT SECTIONS | 130mm SQ Connection

ITEM	DIA	LBS	5' PN	LBS	10' PN	LBS	20' PN
FEX-16 X 5	16"	479	165769		165743		165751
FEX-18 X 5	18"	515	165770		165744		165752
FEX-20 X 5	20"	553	165771		165745		165753
FEX-24 X 5	24"	641	165772		165746		165754
FEX-30 X 5	30"	665	165773		165747		165755
FEX-36 X 5	36"	731	165774		165748		165756
FEX-42 X 5	42"	897	165775		165749		165757
FEX-48 X 5	48"	1090	165776		165750		165758

DRIFT PUNCH

LBS | 3.5

PN | 137737

Soft Hammer

LBS | 3.5

PN | 137737



For Easy Removal of Teeth Use this Drift Punch

To prevent carbide on conical teeth from breaking, Pengo highly recommends using a soft hammer during installation of bullet teeth.

LEAD SECTION | 5' Dirt Section

ITEM	DIA	2070 TEETH	LBS	PN
DIRT LEAD	16"	0		165735
DIRT LEAD	18"	1		165736
DIRT LEAD	20"	2		165737
DIRT LEAD	24"	3		165738
DIRT LEAD	30"	4		165739
DIRT LEAD	36"	6		165740
DIRT LEAD	42"	8		165741
DIRT LEAD	48"	10		165742

All dirt heads include two 2072 outside gage teeth.

PARTS | for Dirt Lead Section

TF-1000
LBS | 43
PN | 137348

2070 Dirt
LBS | 2
PN | 140002

2072 Gage
LBS | 2.3
PN | 140000

2077
LBS | .7
PN | 140003

2078
LBS | 1
PN | 140004

2.5 Pilot Adapter
PN | 151598

2079
LBS | 3.3
PN | 140001

LEAD SECTION | 5' Rock Section

ITEM	DIA	SR100 TEETH	LBS	PN
ROCK LEAD	16"	8		165727
ROCK LEAD	18"	9		165728
ROCK LEAD	20"	11		165729
ROCK LEAD	24"	12		165730
ROCK LEAD	30"	17		165731
ROCK LEAD	36"	20		165732
ROCK LEAD	42"	24		165733
ROCK LEAD	48"	28		165734

PARTS | for Rock Lead Section

C31 HD w/stem
LBS | 30
PN | 135913

SR-100
LBS | 1.1
PN | 850023

S31HD
LBS | 1.1
PN | 850037

P30 Pocket
LBS | .7
PN | 990001

C30 Puller
LBS | 3
PN | 134090

The STRATA® Drilling Grade Teeth allow for drilling in extreme hard rock.

STRATA

Use the C30 Bit Puller to remove Conical Teeth with 1" Shank.

DV-20 DRILLING DRIVE



VARIABLE SPEED DRIVE UNIT | PN 610442

use with Pengo Excavator Augers

Variable Speed Models must have a drain line.

REFERENCE SPEED CHART

Flow GPM (Liter)	Low (rpm)	High (rpm)
40 (151)	16	27
45 (169)	18	30
50 (188)	20	33
55 (206)	22	37
60 (225)	24	40

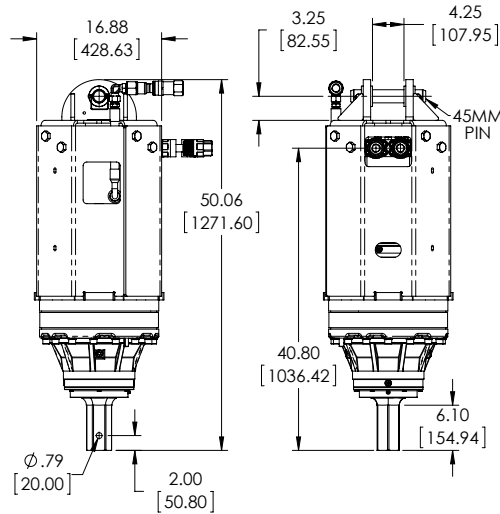
REFERENCE TORQUE CHART (LT / HS)

Pressure (psi)	THEORETICAL Torque (ft/lb)	ACTUAL Torque (ft/lb)
2000	7845	6668
2200	8630	7336
2400	9414	8002
2600	10199	8669
2800	10984	9336
3000	11768	10003
3200	12553	10670
3400	13337	11336
3600	14122	12004
3800	14907	12671
4000	15691	13337

REFERENCE TORQUE CHART (HT / LS)

Pressure (psi)	THEORETICAL Torque (ft/lb)	ACTUAL Torque (ft/lb)
2000	13239	11253
2200	14563	12379
2400	15887	13504
2600	17211	14629
2800	18535	15755
3000	19859	16880
3200	21183	18006
3400	22507	19131
3600	23831	20256
3800	25155	21382
4000	26479	22507

Note that both theoretical and actual torque values are listed, but that Pengo recommends to go by ACTUAL torque listings.



MOUNTS

Excavator Mounts allow for maximum movement to ensure the Drive always hangs true to the ground.

End of Boom (Stick)



Custom mounts can be designed for specific applications.

Pengo offers a complete excavator mounting systems for the DV-20 unit. These mounts can be mounted directly to the boom or designed to work with an existing quick coupler.

Quick Coupler



HYDRAULIC MOTOR INFORMATION

Displacement	8.25 cu/in (135cc)
Motor Type	Variable Speed Bi-Directional
Motor Output Shaft	8/16" Spline 13T
Motor Mount	SAE - D 2 Bolt
Motor Ports	Radial (Quick Coupler)
Cross Over Pressure Relief	None

PLANETARY GEARBOX INFORMATION

Gearbox Type	Planetary Three Stage
Reduction Ratio	60.56:1
Output Shaft	3" Hex
Internal Oil Capacity	3.0 Gallons
Oil Type	SAE 80W90 GL-5
Shaft Pull Out (lbs.)	45,000 lbs.

GENERAL INFORMATION

Excavator Size	12T-20T
Max Dia. Auger Bit	72"
Weight	880 lbs.

45MM Pin

LBS | 7

PN | 660558

45MM Link Arm

LBS | 46

PN | 660555

3" Hex Drive Tool

LBS | 35

PN | 158137

DV-30 DRILLING DRIVE

VARIABLE SPEED DRIVE UNIT | PN 610384

use with Pengo Excavator Augers



Variable Speed Models must have a drain line.



HYDRAULIC MOTOR INFORMATION

Displacement	10.06 cu/in (165cc)
Motor Type	Variable Speed Bi-Directional
Motor Output Shaft	8/16" Spline 13T
Motor Mount	SAE - D 2 Bolt
Motor Ports	Radial (Quick Coupler)
Cross Over Pressure Relief	None

PLANETARY GEARBOX INFORMATION

Gearbox Type	Planetary Three Stage
Reduction Ratio	69.7:1
Output Shaft	4" Square
Internal Oil Capacity	3.17 Gallons
Oil Type	SAE 80W90 GL-5
Shaft Pull Out (lbs.)	60,000 lbs.

GENERAL INFORMATION

Excavator Size	15t-25T
Max Dia. Auger Bit	72"
Weight	1250 lbs.

REFERENCE SPEED CHART

Flow GPM (Liter)	Low (rpm)	High (rpm)
40 (151)	11	27
45 (169)	13	31
50 (188)	14	34
55 (206)	15	37
60 (225)	17	41

REFERENCE TORQUE CHART (LT / HS)

Pressure (psi)	THEORETICAL Torque (ft/lb)	ACTUAL Torque (ft/lb)
2000	7675	6524
2200	8442	7176
2400	9210	7829
2600	9978	8481
2800	10745	9133
3000	11513	9786
3200	12280	10438
3400	13048	11091
3600	13815	11743
3800	14583	12396
4000	15350	13048

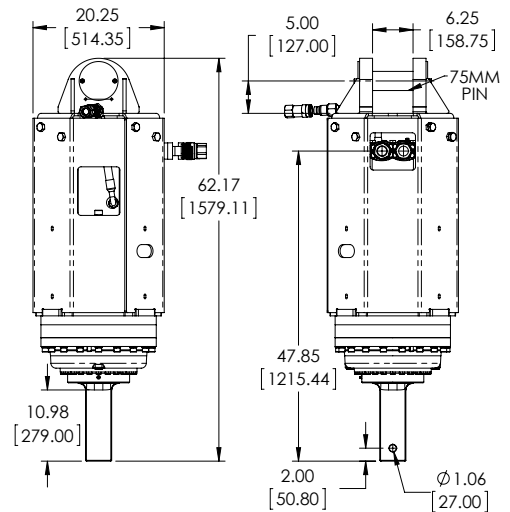
LOW TORQUE/HIGH SPEED OUTPUT

REFERENCE TORQUE CHART (HT / LS)

Pressure (psi)	THEORETICAL Torque (ft/lb)	ACTUAL Torque (ft/lb)
2000	18624	15830
2200	20486	17413
2400	22349	18997
2600	24211	20579
2800	26073	22162
3000	27936	23746
3200	29798	25328
3400	31661	26912
3600	33523	28495
3800	35386	30078
4000	37248	31661

HIGH TORQUE/LOW SPEED OUTPUT

Note that both theoretical and actual torque values are listed, but that Pengo recommends to go by ACTUAL torque listings.



MOUNTS

Excavator Mounts allow for maximum movement to ensure the Drive always hangs true to the ground.

End of Boom (Stick)



Pengo offers a complete excavator mounting systems for the DV-30 unit. These mounts can be mounted directly to the boom or designed to work with an existing quick coupler.

Quick Coupler

Custom mounts can be designed for specific applications.



75MM Pin

LBS | 10

PN | 660554



75MM Link Arm

LBS | 137

PN | 610202



130MM SQ Drive Tool

LBS | 35

PN | 610301



DV-40 DRILLING DRIVE



VARIABLE SPEED DRIVE UNIT | PN 610385

use with Pengo Excavator Augers

Variable Speed Models must have a drain line.

REFERENCE SPEED CHART

Flow GPM (Liter)	Low (rpm)	High (rpm)
40 (151)	9	23
45 (169)	10	25
50 (188)	12	28
55 (206)	13	31
60 (225)	14	34

REFERENCE TORQUE CHART (LT / HS)

Pressure (psi)	THEORETICAL Torque (ft/lb)	ACTUAL Torque (ft/lb)
2000	9225	7841
2200	10148	8626
2400	11071	9410
2600	11993	10194
2800	12916	10979
3000	13838	11762
3200	14761	12547
3400	15684	13331
3600	16606	14115
3800	17529	14900
4000	18451	15683

REFERENCE TORQUE CHART (HT / LS)

Pressure (psi)	THEORETICAL Torque (ft/lb)	ACTUAL Torque (ft/lb)
2000	22386	19028
2200	24625	20931
2400	26863	22834
2600	29102	24737
2800	31341	26640
3000	33579	28542
3200	35818	30445
3400	38057	32348
3600	40295	34251
3800	42534	36154
4000	44772	38056

Note that both theoretical and actual torque values are listed, but that Pengo recommends to go by ACTUAL torque listings.

75MM Pin

LBS | 10

PN | 660554

75MM Link Arm

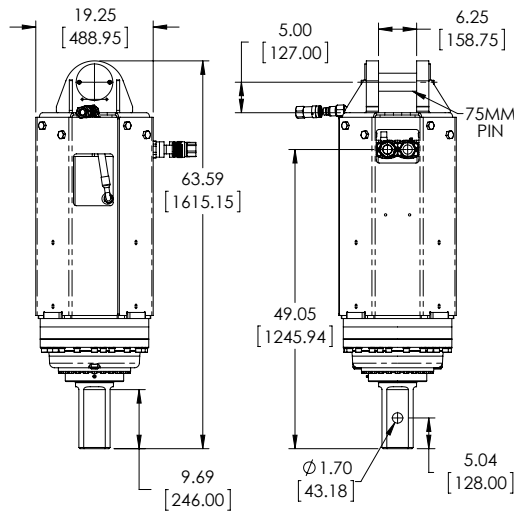
LBS | 137

PN | 610202

130MM SQ Drive Tool

LBS | 35

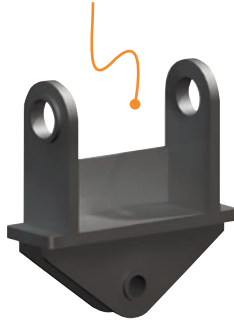
PN | 610301



MOUNTS

Excavator Mounts allow for maximum movement to ensure the Drive always hangs true to the ground.

End of Boom (Stick)



Custom mounts can be designed for specific applications.

Pengo offers a complete excavator mounting systems for the DV-40 unit. These mounts can be mounted directly to the boom or designed to work with an existing quick coupler.

Quick Coupler



H
HIGH
SPEED

HYDRAULIC MOTOR INFORMATION

Displacement	10.06 cu/in (165cc)
Motor Type	Variable Speed Bi-Directional
Motor Output Shaft	8/16" Spline 13T
Motor Mount	SAE - D 2 Bolt
Motor Ports	Radial (Quick Coupler)
Cross Over Pressure Relief	None

PLANETARY GEARBOX INFORMATION

Gearbox Type	Planetary Three Stage
Reduction Ratio	83.78:1
Output Shaft	130mm Square
Internal Oil Capacity	4.0 Gallons
Oil Type	SAE 80W90 GL-5
Shaft Pull Out (lbs.)	60,000 lbs.

GENERAL INFORMATION

Excavator Size	15t-25T
Max Dia. Auger Bit	84"
Weight	1500 lbs.

PENGO EXCAVATOR AUGERS

800.599.0211