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CNC Machining



Gear Cutting

2015 ENGINEERING CATALOGUE



Fitting & Assembly



Gearbox Refurbishment

Dynamic Solutions from concept to manufacture
www.hercus.com.au

2015 ENGINEERING CATALOGUE

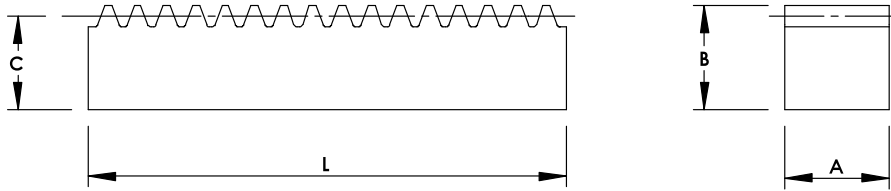


Contents

Dynamic solutions from concept to manufacture	4
CNC - Machining/Milling/Boring	6
CNC - Turning	7
Gear cutting	8
Fitting and assembly and Hercus Manufacturing Capabilities	9
Couplings	10
Chain Shaft Couplings	11
Splines Clutches	12 - 14
Torque Limiters	15 - 17
Torque Limiter Couplings	
Stock Gearing	18
Racks – 16 DP to 5DP	19
Racks – 1.5 Mod to 5 Mod	20
Spur Gears – 4.0 Mod	21
Spur Gears – 3.0 Mod	22
Spur Gears – 2.5 Mod	23
Spur Gears – 2.0 Mod	24
Spur Gears – 1.5 Mod	25
Spur Gears – 16 DP	26
Spur Gears – 14 DP	27
Spur Gears – 12 DP	30
Spur Gears – 10DP	31
Spur Gears – 8 DP	32
Spur Gears – 6 DP	33
Mitre Gears – 1.5 Mod to 4.0 Mod	34
Mitre Gears – 32 DP to 3 DP	35
Bevel Gears – Ratio 1:2 (1.5 to 4.0 Mod)	36
Bevel Gears – Ratio 1:3 & 1:4 (1.5 to 4.0 Mod)	37
Bevel Gears – Ratio 1:2 and 2:3 (6 – 12 DP)	38
Bevel Gears – Ratio 1:3, 1:4 & 1:6 (6 – 12 DP)	39
Stock Handwheels	40 - 43
Handwheels – 80mm to 500MM diameter	44 - 45
Stock Keysteel	46 - 50
Keyway Standards – Imperial and Metric	51
Keyway Tolerances	52 - 53
Worm Jacks	54 - 55
Screw Worm Jacks – HK Series	
Valve Operators	
KV5 Input Stop	
Reference Data	
Notes	
Gear Design Form	
Tooth Size Reference Chart	

This catalogue contains a comprehensive range of standardised stock components, designed for use as building blocks in the construction of all types of industrial machinery. The use of stock components in lieu of custom-made items can bring many advantages to both builder and user of the equipment in which they are incorporated. Costs may be lowered by bringing the economies of high volume production to areas where these could not otherwise have been attained. The use of standard, "off the shelf" items can significantly reduce both inventories and lead times. Repair and maintenance can be greatly simplified through the ready availability of interchangeable replacement parts.

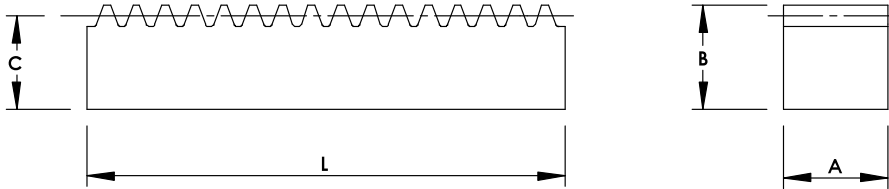




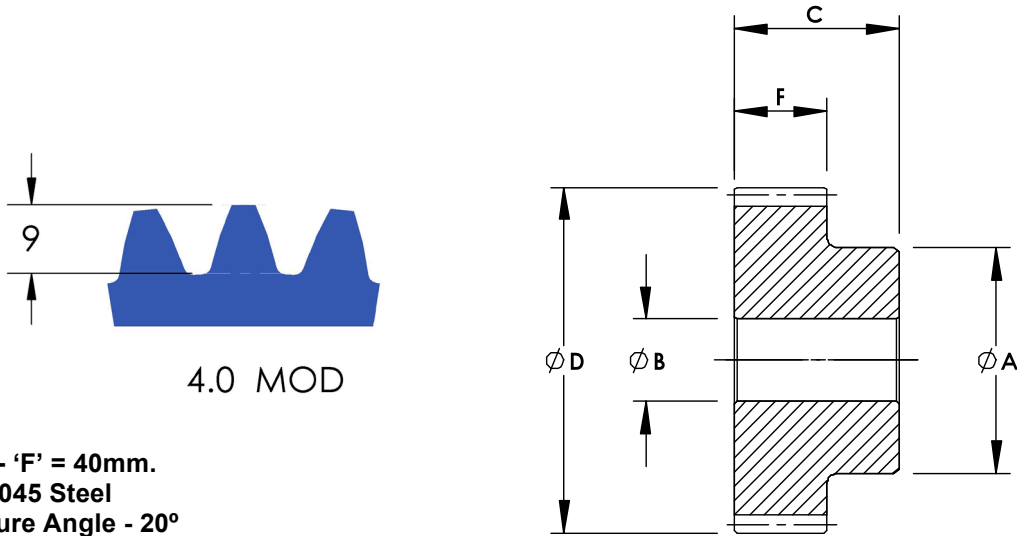
Dimension A is $-0.010''$ to $-0.015''$ on Nominal Size.

Dimension L is -0 to $+1/8''$ on Nominal Size

Catalogue No.	No. Teeth	Pitch in DP	L	A	B	C
12F16R	63	16	12.3/8"	1/2"	1/2"	0.430"
24F16R	124	16	24.3/8"	1/2"	1/2"	0.430"
12F14R	55	14	12.1/4"	5/8"	5/8"	0.545"
24F14R	108	14	24.1/8"	5/8"	5/8"	0.545"
12F12R	48	12	12.5/8"	7/8"	7/8"	0.783"
24F12R	93	12	24.1/4"	7/8"	7/8"	0.783"
48F12R	185	12	48.3/8"	7/8"	7/8"	0.783"
24F10R	78	10	24.1/2"	1.1/8"	1.1/8"	1.016"
48F10R	154	10	48.3/8"	1.1/8"	1.1/8"	1.016"
24F8R	62	8	24.1/4"	1.1/2"	1.1/2"	1.365"
48F8R	123	8	48.1/4"	1.1/2"	1.1/2"	1.365"
24F6R	46	6	24.1/8"	2"	1.1/2"	1.323"
48F6R	92	6	48.1/4"	2"	1.1/2"	1.323"
24F5R	39	5	24.1/2"	2.1/2"	1.1/2"	1.290"
48F5R	77	5	48.3/8"	2.1/2"	1.1/2"	1.290"



Catalogue No.	No. Teeth	Module Pitch	L	A	B	C
0.5M1.5R	106	1.5	500	15.88 15.50	15.88 15.68	14.19
1.0M1.5R	212	1.5	1000	15.88 15.50	15.88 15.68	14.19
0.5M2.0R	79	2.0	500	22.23 21.85	22.23 22.02	20.01
1.0M2.0R	159	2.0	1000	22.23 21.85	22.23 22.02	20.01
1.5M2.0R	238	2.0	1500	22.23 21.85	22.23 22.02	20.01
0.5M2.5R	64	2.5	500	25.40 25.02	25.40 25.17	22.66
1.0M2.5R	127	2.5	1000	25.40 25.02	25.40 25.17	22.66
1.5M2.5R	191	2.5	1500	25.40 25.02	25.40 25.17	22.66
1.0M3.0R	106	3.0	1000	31.75 31.37	31.75 31.54	28.49
1.5M3.0R	159	3.0	1500	31.75 31.37	31.75 31.54	28.49
1.0M4.0R	80	4.0	1000	44.45 44.05	44.45 44.21	40.16
1.5M4.0R	119	4.0	1500	44.45 44.05	44.45 44.21	40.16
1.0M5.0R	64	5.0	1000	50.80 50.40	50.80 50.56	45.46
1.5M5.0R	96	5.0	1500	50.80 50.40	50.80 50.56	45.46

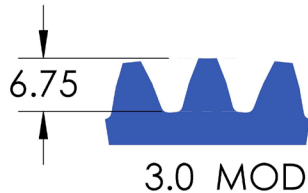


Face Width – 'F' = 40mm.
Material - S1045 Steel
Tooth Pressure Angle - 20°
Gear Accuracy Conforms To AGMA Class 8

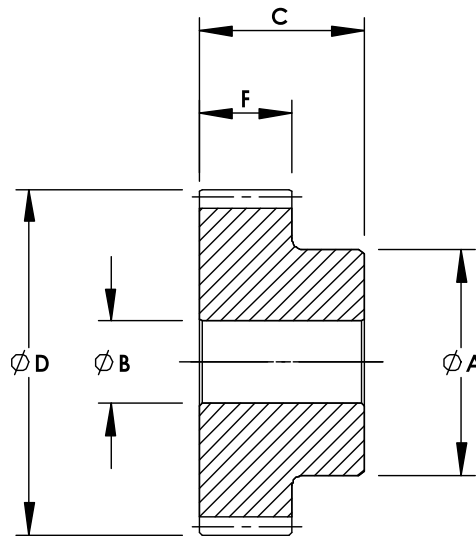
Catalogue No.	No. Teeth	Pitch Dia.	A	B	C	D
12M4.0S	12	52.00	35.0	20.00	60.0	60.00
14M4.0S	14	60.00	40.0	20.00	60.0	68.00
15M4.0S	15	64.00	45.0	20.00	60.0	72.00
16M4.0S	16	68.00	50.0	20.00	60.0	76.00
18M4.0S	18	72.00	55.0	20.00	60.0	80.00
19M4.0S	19	76.00	60.0	20.00	60.0	84.00
20M4.0S	20	80.00	65.0	20.00	60.0	88.00
24M4.0S	24	96.00	80.0	20.00	60.0	104.00
30M4.0S	30	120.00	100.0	20.00	60.0	128.00
36M4.0S	36	144.00	100.0	22.00	56.0	152.00
40M4.0S	40	160.00	100.0	25.00	56.0	168.00
44M4.0S	44	176.00	100.0	25.00	56.0	184.00
45M4.0S	45	180.00	100.0	25.00	56.0	188.00
48M4.0S	48	192.00	100.0	25.00	56.0	200.00
54M4.0S	54	216.00	100.0	30.00	56.0	224.00
60M4.0S	60	240.00	110.0	30.00	56.0	248.00

Dimensions in mm.

Note:- To give added strength and improved tooth action all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by one addendum. Centre distance for any two gears is the sum of their pitch diameters as shown in the table, divided by two.



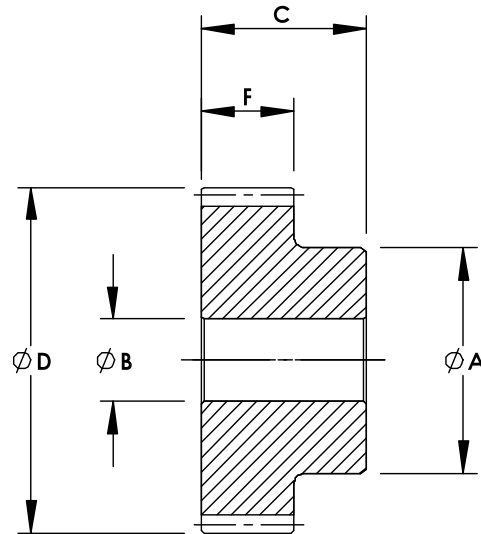
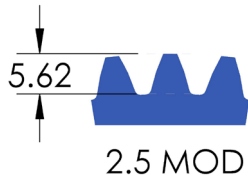
Face Width – ‘F’ = 30mm.
Material - S1045 Steel
Tooth Pressure Angle - 20°
Gear Accuracy Conforms To AGMA Class 8



Catalogue No.	No. Teeth	Pitch Dia.	A	B	C	D
12M3.0S	12	39.00	28.0	15.00	45.0	45.00
14M3.0S	14	45.00	36.0	15.00	45.0	51.00
15M3.0S	15	48.00	38.0	15.00	45.0	54.00
16M3.0S	16	51.00	39.0	15.00	45.0	57.00
18M3.0S	18	54.00	40.0	15.00	45.0	60.00
20M3.0S	20	60.00	50.0	15.00	45.0	66.00
24M3.0S	24	72.00	58.0	15.00	45.0	78.00
28M3.0S	28	84.00	70.0	20.00	45.0	90.00
30M3.0S	30	90.00	75.0	20.00	45.0	96.00
32M3.0S	32	96.00	75.0	20.00	45.0	102.00
36M3.0S	36	108.00	80.0	20.00	45.0	114.00
40M3.0S	40	120.00	80.0	25.00	45.0	126.00
44M3.0S	44	132.00	80.0	25.00	45.0	138.00
45M3.0S	45	135.00	80.0	25.00	45.0	141.00
48M3.0S	48	144.00	80.0	25.00	45.0	150.00
54M3.0S	54	162.00	80.0	25.00	45.0	168.00
56M3.0S	56	168.00	80.0	25.00	45.0	174.00
60M3.0S	60	180.00	80.0	25.00	45.0	186.00
64M3.0S	64	192.00	80.0	25.00	45.0	198.00
72M3.0S	72	216.00	90.0	25.00	45.0	222.00

Dimensions in mm.

Note:- To give added strength and improved tooth action all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by one addendum. Centre distance for any two gears is the sum of their pitch diameters as shown in the table, divided by two.

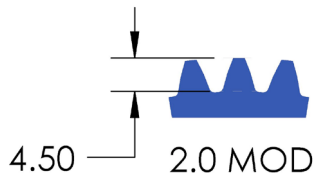


Face Width – 'F' = 25mm.
Material - S1045 Steel
Tooth Pressure Angle - 20°
Gear Accuracy Conforms To AGMA Class 8

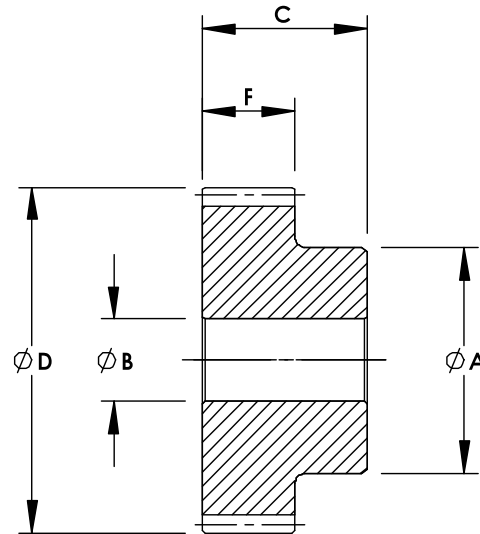
Catalogue No.	No. Teeth	Pitch Dia.	A	B	C	D
12M2.5S	12	32.50	25.0	12.00	37.0	37.50
14M2.5S	14	37.50	30.0	12.00	37.0	42.50
15M2.5S	15	40.00	32.0	15.00	37.0	45.00
16M2.5S	16	42.50	35.0	15.00	37.0	47.50
18M2.5S	18	45.00	38.0	15.00	37.0	50.00
20M2.5S	20	50.00	40.0	15.00	37.0	55.00
24M2.5S	24	60.00	48.0	15.00	37.0	65.00
25M2.5S	25	62.50	50.0	15.00	37.0	67.50
28M2.5S	28	70.00	60.0	15.00	37.0	75.00
30M2.5S	30	75.00	65.0	15.00	37.0	80.00
35M2.5S	35	87.50	70.0	15.00	37.0	92.50
36M2.5S	36	90.00	70.0	15.00	37.0	95.00
40M2.5S	40	100.00	70.0	20.00	37.0	105.00
45M2.5S	45	112.50	70.0	20.00	37.0	117.50
48M2.5S	48	120.00	70.0	20.00	37.0	125.00
50M2.5S	50	125.00	70.0	20.00	37.0	130.00
54M2.5S	54	135.00	70.0	20.00	37.0	140.00
55M2.5S	55	137.50	70.0	20.00	37.0	142.50
60M2.5S	60	150.00	70.0	25.00	37.0	155.00
70M2.5S	70	175.00	80.0	25.00	37.0	180.00

Dimensions in mm.

Note:- To give added strength and improved tooth action all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by one addendum. Centre distance for any two gears is the sum of their pitch diameters as shown in the table, divided by two.



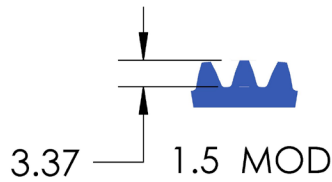
Face Width – 'F' = 20mm.
Material - S1045 Steel
Tooth Pressure Angle - 20°
Gear Accuracy Conforms To AGMA Class 8



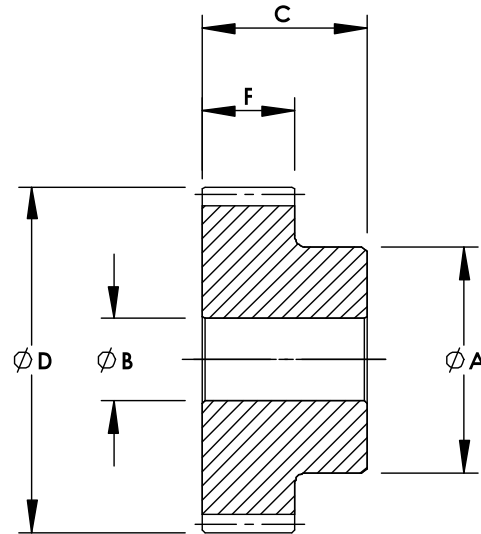
Catalogue No.	No. Teeth	Pitch Dia.	A	B	C	D
12M2.0S	12	26.00	20.0	10.00	30.0	30.00
13M2.0S	13	28.00	20.0	10.00	30.0	32.00
14M2.0S	14	30.00	24.0	10.00	30.0	34.00
15M2.0S	15	32.00	26.0	12.00	30.0	36.00
16M2.0S	16	34.00	28.0	12.00	30.0	38.00
18M2.0S	18	36.00	30.0	12.00	30.0	40.00
20M2.0S	20	40.00	32.0	12.00	30.0	44.00
21M2.0S	21	42.00	34.0	12.00	30.0	46.00
24M2.0S	24	48.00	38.0	12.00	30.0	52.00
28M2.0S	28	56.00	45.0	12.00	30.0	60.00
30M2.0S	30	60.00	50.0	12.00	30.0	64.00
36M2.0S	36	72.00	55.0	12.00	30.0	76.00
40M2.0S	40	80.00	55.0	15.00	30.0	84.00
42M2.0S	42	84.00	55.0	15.00	30.0	88.00
45M2.0S	45	90.00	55.0	15.00	30.0	94.00
48M2.0S	48	96.00	55.0	15.00	30.0	100.00
54M2.0S	54	108.00	55.0	15.00	30.0	112.00
60M2.0S	60	120.00	60.0	15.00	30.0	124.00
72M2.0S	72	144.00	60.0	15.00	30.0	148.00

Dimensions in mm.

Note:- To give added strength and improved tooth action all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by one addendum. Centre distance for any two gears is the sum of their pitch diameters as shown in the table, divided by two.



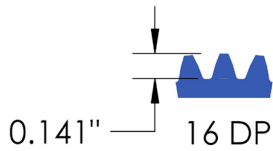
Face Width – 'F' = 15mm.
Material - S1045 Steel
Tooth Pressure Angle - 20°
Gear Accuracy Conforms To AGMA Class 8



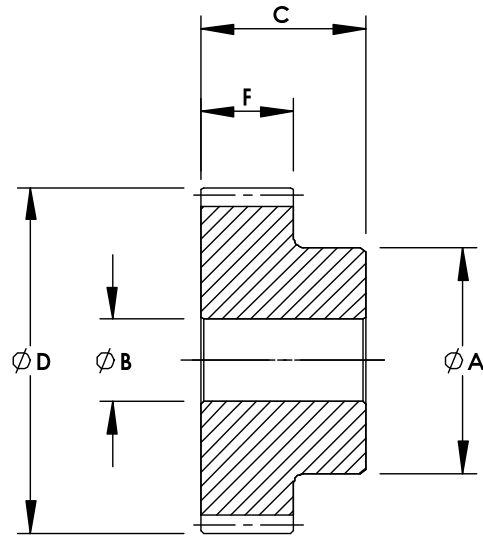
Catalogue No.	No. Teeth	Pitch Dia.	A	B	C	D
12M1.5S	12	19.50	14.0	8.00	25.0	22.50
14M1.5S	14	22.50	16.0	8.00	25.0	25.50
15M1.5S	15	24.00	20.0	8.00	25.0	27.00
16M1.5S	16	25.50	21.0	8.00	25.0	28.50
20M1.5S	20	30.00	24.0	8.00	25.0	33.00
24M1.5S	24	36.00	28.0	8.00	25.0	39.00
28M1.5S	28	42.00	36.0	10.00	25.0	45.00
30M1.5S	30	45.00	38.0	10.00	25.0	48.00
32M1.5S	32	48.00	40.0	10.00	25.0	51.00
36M1.5S	36	54.00	45.0	10.00	25.0	57.00
40M1.5S	40	60.00	45.0	12.00	25.0	63.00
45M1.5S	45	67.50	45.0	12.00	25.0	70.50
48M1.5S	48	72.00	45.0	12.00	25.0	75.00
54M1.5S	54	81.00	50.0	15.00	25.0	84.00
56M1.5S	56	84.00	50.0	15.00	25.0	87.00
60M1.5S	60	90.00	50.0	15.00	25.0	93.00
64M1.5S	64	96.00	55.0	15.00	25.0	99.00
72M1.5S	72	108.00	55.0	15.00	25.0	111.00

Dimensions in mm.

Note:- To give added strength and improved tooth action all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by one addendum. Centre distance for any two gears is the sum of their pitch diameters as shown in the table, divided by two.



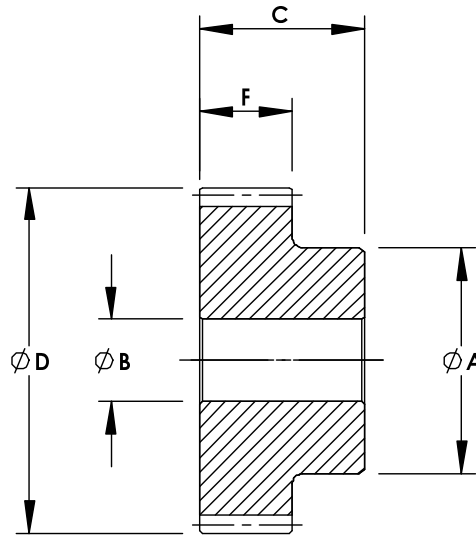
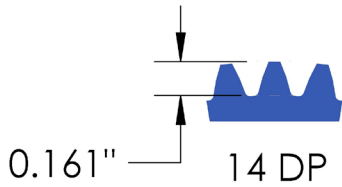
Face Width – 'F' = 1/2"
Material - S1045 Steel
Tooth Pressure Angle - 20°



Catalogue No.	No. Teeth	Pitch Dia.	A	B	C	D
12D16S	12	0.812"	0.65"	0.3125"	15/16"	0.937"
14D16S	14	0.937"	0.75"	0.3125"	15/16"	1.062"
15D16S	15	1.000"	0.83"	0.3125"	15/16"	1.125"
16D16S	16	1.062"	0.88"	0.375"	15/16"	1.187"
20D16S	20	1.250"	1.06"	0.375"	15/16"	1.375"
24D16S	24	1.500"	1.1/4"	0.500"	15/16"	1.625"
28D16S	28	1.750"	1.1/2"	0.500"	15/16"	1.875"
32D16S	32	2.000"	1.3/4"	0.500"	15/16"	2.125"
36D16S	36	2.250"	1.3/4"	0.500"	15/16"	2.375"
40D16S	40	2.500"	1.3/4"	0.500"	1"	2.625"
48D16S	48	3.000"	2"	0.500"	1"	3.125"
56D16S	56	3.500"	2.1/4"	0.500"	1"	3.625"
64D16S	64	4.000"	2.1/2"	0.500"	1"	4.125"
72D16S	72	4.500"	2.1/2"	0.500"	1"	4.625"

Dimensions in Inches.

Note:- To give added strength and improved tooth action all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by one addendum. Centre distance for any two gears is the sum of their pitch diameters as shown in the table, divided by two.

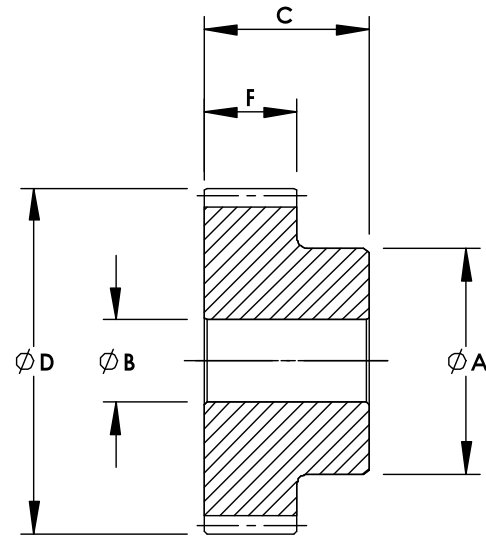
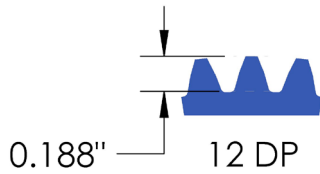


Face Width – 'F' = 5/8"
Material - S1045 Steel
Tooth Pressure Angle - 20°

Catalogue No.	No. Teeth	Pitch Dia.	A	B	C	D
12D14S	12	0.929"	0.70"	0.375"	1.1/8"	1.071"
13D14S	13	1.000"	0.81"	0.375"	1.1/8"	1.143"
14D14S	14	1.071"	0.85"	0.375"	1.1/8"	1.214"
15D14S	15	1.143"	0.92"	0.375"	1.1/8"	1.286"
16D14S	16	1.214"	1.00"	0.375"	1.1/8"	1.357"
20D14S	20	1.429"	1.20"	0.500"	1.1/8"	1.571"
21D14S	21	1.500"	1.30"	0.500"	1.1/8"	1.643"
24D14S	24	1.714"	1.50"	0.500"	1.1/8"	1.857"
28D14S	28	2.000"	1.3/4"	0.500"	1.1/8"	2.143"
30D14S	30	2.143"	1.3/4"	0.625"	1.1/8"	2.286"
35D14S	35	2.500"	2"	0.625"	1.1/8"	2.643"
42D14S	42	3.000"	2"	0.625"	1.1/8"	3.143"
49D14S	49	3.500"	2.1/2"	0.625"	1.1/8"	3.643"
56D14S	56	4.000"	2.1/2"	0.625"	1.1/8"	4.143"
63D14S	63	4.500"	3"	0.625"	1.1/4"	4.643"
70D14S	70	5.000"	3"	0.625"	1.1/4"	5.143"

Dimensions in Inches.

Note:- To give added strength and improved tooth action all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by one addendum. Centre distance for any two gears is the sum of their pitch diameters as shown in the table, divided by two.



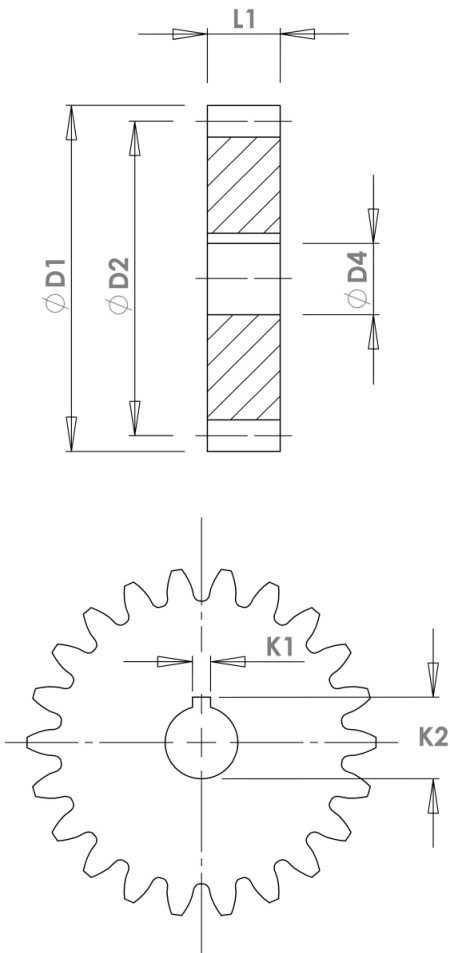
Face Width – 'F' = 7/8"
Material - S1045 Steel
Tooth Pressure Angle - 20°

Catalogue No.	No. Teeth	Pitch Dia.	A	B	C	D
12D12S	12	1.083"	0.85"	0.500"	1.1/2"	1.250"
13D12S	13	1.167"	0.93"	0.500"	1.1/2"	1.333"
14D12S	14	1.250"	1.00"	0.500"	1.1/2"	1.417"
15D12S	15	1.333"	1.10"	0.500"	1.1/2"	1.500"
16D12S	16	1.417"	1.3/16"	0.500"	1.1/2"	1.583"
18D12S	18	1.500"	1.1/4"	0.625"	1.1/2"	1.667"
20D12S	20	1.667"	1.7/16"	0.625"	1.1/2"	1.833"
21D12S	21	1.750"	1.1/2"	0.625"	1.1/2"	1.917"
24D12S	24	2.000"	1.3/4"	0.625"	1.1/2"	2.167"
27D12S	27	2.250"	2"	0.750"	1.1/2"	2.417"
30D12S	30	2.500"	2.1/4"	0.750"	1.1/2"	2.667"
36D12S	36	3.000"	2.1/4"	0.750"	1.1/2"	3.167"
40D12S	40	3.333"	2.1/2"	0.750"	1.1/2"	3.500"
42D12S	42	3.500"	2.1/2"	0.750"	1.1/2"	3.667"
45D12S	45	3.750"	3"	0.875"	1.5/8"	3.917"
48D12S	48	4.000"	3"	0.875"	1.5/8"	4.167"
54D12S	54	4.500"	3.1/2"	0.875"	1.5/8"	4.667"
60D12S	60	5.000"	3.3/4"	0.875"	1.5/8"	5.167"
72D12S	72	6.000"	4.1/2"	0.875"	1.5/8"	6.167"

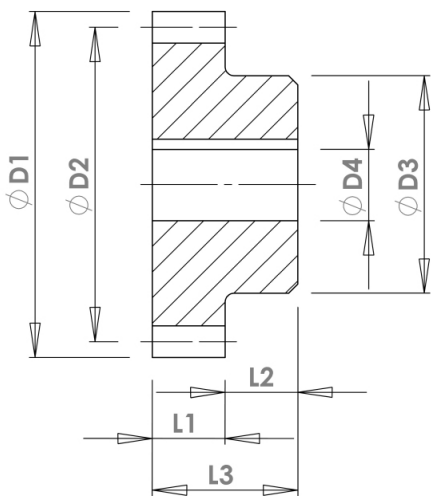
Dimensions in Inches.

Note:- To give added strength and improved tooth action all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by one addendum. Centre distance for any two gears is the sum of their pitch diameters as shown in the table. divided by two.

TYPE A (FLUSH)



TYPE B (BOSS)



Gear Details

No. Teeth		
Pitch		
Pressure Angle		°
Helix Angle		°
Handing (if Helical)	LH <input type="checkbox"/>	RH <input type="checkbox"/>
Tooth Finish	Machine <input type="checkbox"/>	Ground <input type="checkbox"/>
Material		

Gear Type

	Type A <input type="checkbox"/>	Type B <input type="checkbox"/>
Outside Dia.	D1	
Pitch Circle Dia.	D2	
Boss Dia. (Type B)	D3	
Bore Dia.	D4	
Face Width	L1	
Boss Length (Type B)	L2	
Overall Length (L1 or L3)	L3	

Keyway Details

Keyway Width	K1
Keyway Depth	K2
No. of Keyways	

Tapped Hole Details

Tapping Size	
Position	
No. of Holes	

Customer Reference

Customer Name	
Customer Contact	
Customer Order Reference	
Date	
Customer Confirmation	sign below for Job to proceed
Approved for Manufacture	

Hercus Use Only

Hercus Quote No.	
Hercus Part No.	
Hercus Job No.	



24 DP



16 DP



1.0 MOD



1.5 MOD



14 DP



12 DP



2.0 MOD



2.5 MOD



10 DP



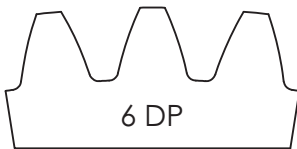
8 DP



3.0 MOD



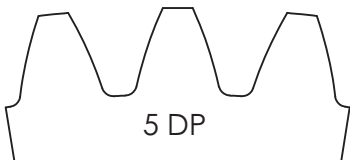
3.5 MOD



6 DP



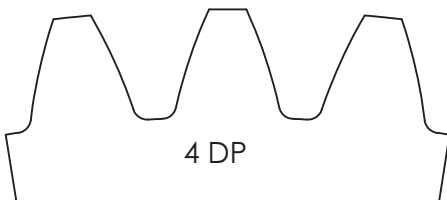
4.0 MOD



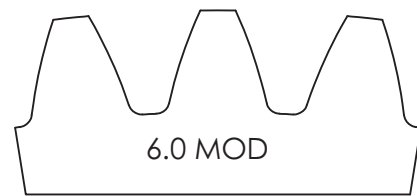
5 DP



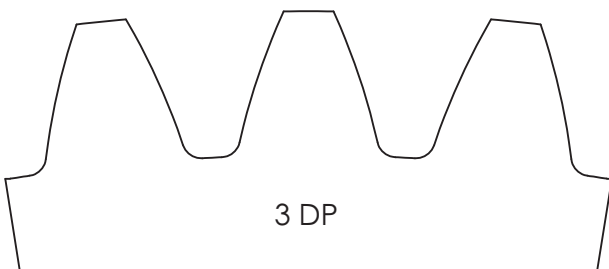
5.0 MOD



4 DP



6.0 MOD

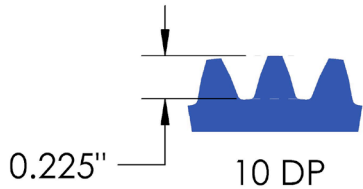


3 DP

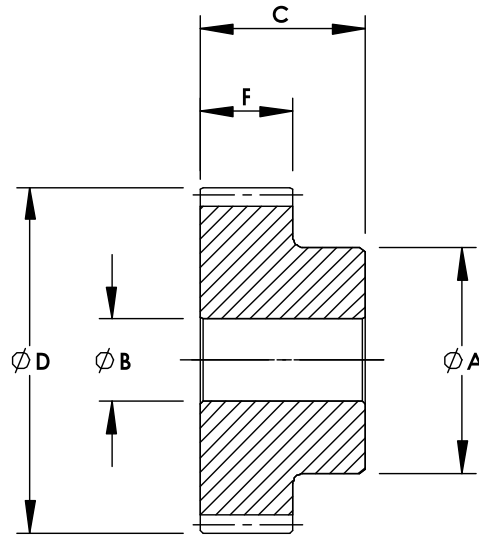


8.0 MOD

Full Size Teeth
of 20° Pressure
Angle in Inch
and Metric Sizes



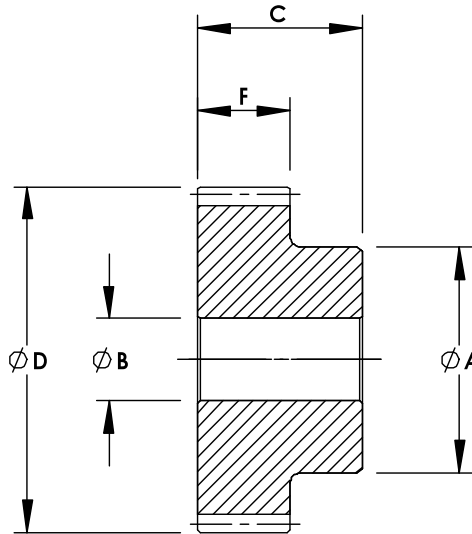
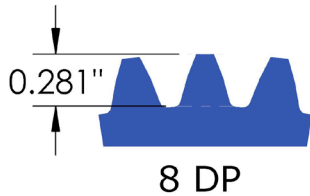
Face Width – 'F' = 1.1/8"
Material - S1045 Steel
Tooth Pressure Angle - 20°



Catalogue No.	No. Teeth	Pitch Dia.	A	B	C	D
12D10S	12	1.300"	1.00"	0.625"	1.3/4"	1.500"
14D10S	14	1.500"	1.20"	0.625"	1.3/4"	1.700"
15D10S	15	1.600"	1.30"	0.625"	1.3/4"	1.800"
16D10S	16	1.700"	1.40"	0.625"	1.3/4"	1.900"
18D10S	18	1.800"	1.1/2"	0.750"	1.3/4"	2.000"
20D10S	20	2.000"	1.70"	0.750"	1.3/4"	2.200"
24D10S	24	2.400"	2.1/8"	0.750"	1.3/4"	2.600"
25D10S	25	2.500"	2.1/8"	0.875"	1.3/4"	2.700"
30D10S	30	3.000"	2.1/2"	0.875"	1.7/8"	3.200"
35D10S	35	3.500"	2.5/8"	0.875"	1.7/8"	3.700"
36D10S	36	3.600"	2.5/8"	0.875"	1.7/8"	3.800"
40D10S	40	4.000"	2.3/4"	1.000"	2"	4.200"
45D10S	45	4.500"	3.1/2"	1.000"	2"	4.700"
50D10S	50	5.000"	4"	1.000"	2"	5.200"
55D10S	55	5.500"	4.1/4"	1.000"	2"	5.700"
60D10S	60	6.000"	4.1/2"	1.000"	2"	6.200"
70D10S	70	7.000"	5"	1.000"	2"	7.200"

Dimensions in Inches.

Note:- To give added strength and improved tooth action all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by one addendum. Centre distance for any two gears is the sum of their pitch diameters as shown in the table, divided by two.

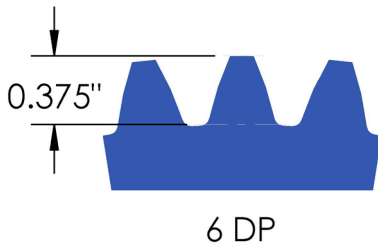


Face Width – 'F' = 1.1/2"
Material - S1045 Steel
Tooth Pressure Angle - 20°

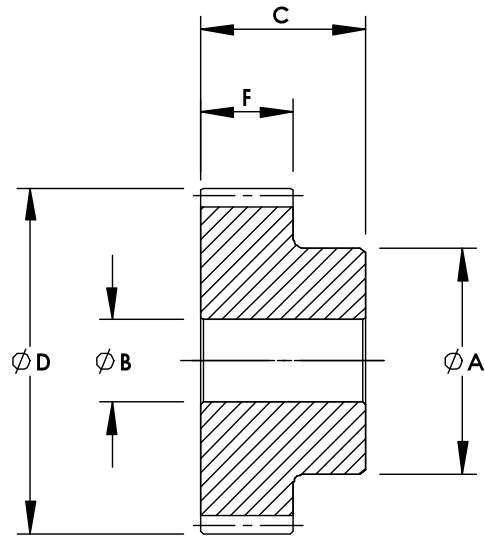
Catalogue No.	No. Teeth	Pitch Dia.	A	B	C	D
12D8S	12	1.625"	1.1/4"	0.750"	2.1/4"	1.875"
14D8S	14	1.875"	1.1/2"	0.750"	2.1/4"	2.125"
15D8S	15	2.000"	1.5/8"	0.750"	2.1/4"	2.250"
16D8S	16	2.125"	1.3/4"	0.750"	2.1/4"	2.375"
18D8S	18	2.250"	1.7/8"	0.875"	2.1/4"	2.500"
20D8S	20	2.500"	2.1/8"	0.875"	2.3/8"	2.750"
24D8S	24	3.000"	2.5/8"	0.875"	2.3/8"	3.250"
28D8S	28	3.500"	3"	0.875"	2.3/8"	3.750"
30D8S	30	3.750"	3"	1.000"	2.3/8"	4.000"
32D8S	32	4.000"	3"	1.000"	2.3/8"	4.250"
36D8S	36	4.500"	3.1/4"	1.000"	2.3/8"	4.750"
40D8S	40	5.000"	4"	1.000"	2.1/2"	5.250"
44D8S	44	5.500"	4.1/4"	1.125"	2.1/2"	5.750"
48D8S	48	6.000"	4.1/2"	1.125"	2.1/2"	6.250"
56D8S	56	7.000"	5"	1.125"	2.1/2"	7.250"
60D8S	60	7.500"	5.1/2"	1.125"	2.1/2"	7.750"
64D8S	64	8.000"	6"	1.125"	2.1/2"	8.250"
72D8S	72	9.000"	6.1/2"	1.125"	2.1/2"	9.250"

Dimensions in Inches.

Note:- To give added strength and improved tooth action all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by one addendum. Centre distance for any two gears is the sum of their pitch diameters as shown in the table, divided by two.



Face Width – 'F' = 2"
Material - S1045 Steel
Tooth Pressure Angle - 20°

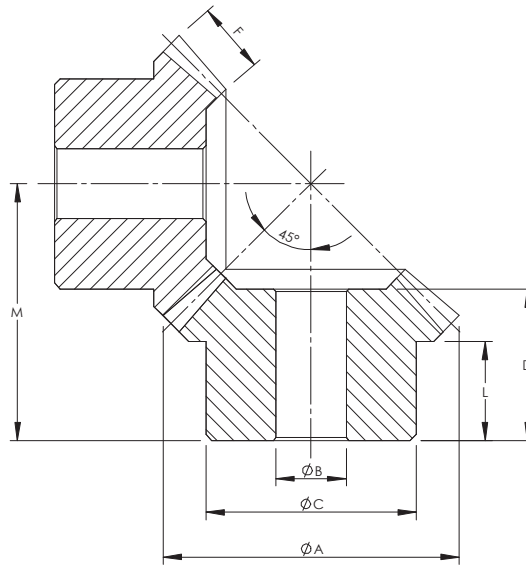


Catalogue No.	No. Teeth	Pitch Dia.	A	B	C	D
12D6S	12	2.167"	1.3/4"	0.875"	2.7/8"	2.500"
14D6S	14	2.500"	2"	0.875"	2.7/8"	2.833"
15D6S	15	2.667"	2.1/4"	1.000"	2.7/8"	3.000"
16D6S	16	2.833"	2.3/8"	1.000"	2.7/8"	3.167"
18D6S	18	3.000"	2.1/2"	1.000"	2.7/8"	3.333"
19D6S	19	3.166"	2.5/8"	1.000"	2.7/8"	3.500"
20D6S	20	3.333"	2.3/4"	1.000"	2.7/8"	3.667"
24D6S	24	4.000"	3.1/4"	1.125"	2.7/8"	4.333"
30D6S	30	5.000"	3.3/4"	1.125"	2.7/8"	5.333"
36D6S	36	6.000"	4.3/4"	1.250"	3.1/4"	6.333"
40D6S	40	6.667"	5.1/4"	1.250"	3.1/4"	7.000"
44D6S	44	7.333"	5.1/2"	1.250"	3.1/4"	7.667"
45D6S	45	7.500"	6"	1.250"	3.1/4"	7.833"
48D6S	48	8.000"	6"	1.250"	3.1/2"	8.333"
54D6S	54	9.000"	6.3/4"	1.250"	3.1/2"	9.333"
60D6S	60	10.000"	7.1/2"	1.250"	3.1/2"	10.333"

Dimensions in Inches.

Note:- To give added strength and improved tooth action all pinions having 16 teeth or less have had their effective meshing pitch diameter increased by one addendum. Centre distance for any two gears is the sum of their pitch diameters as shown in the table, divided by two.

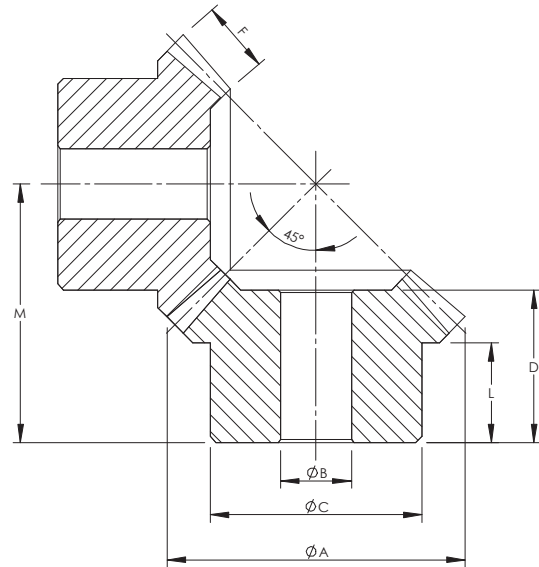
Material - S1045 Steel
Tooth Pressure Angle - 20°



Catalogue No.	No. Teeth	Pitch MOD	Pitch Dia.	A	B	C	D	F	L	M
16M1.5M	16	1.5	24	26.1	8	20.3		6	12	26
20M1.5M	20	1.5	30	32.1	10	22	18	10	8.5	27.4
16M2.0M	16	2	32	34.8	10	25.3		8	14	33
20M2.0M	20	2	40	42.8	10	32	22	12	12	35.78
25M2.0M	25	2	50	52.8	12	40	25	14	12.3	42.28
20M2.5M	20	2.5	50	53.5	12	40	27	12	16	45.93
25M2.5M	25	2.5	62.5	66	15	50	30	15	16	52.98
20M3.0M	20	3	60	64.2	15	45	31	18	13.6	51
25M3.0M	25	3	75	79.2	15	55	34	20	16	60
30M3.0M	30	3	90	94.2	20	60	36	22	17	68
30M3.5M	30	3.5	105	109.9	20	70	43.5	30	19	78.02
25M4.0M	25	4	100	105.6	20	70	40	28	18	73.50
30M4.0M	30	4	120	125.6	25	80	43	32	16	83.67

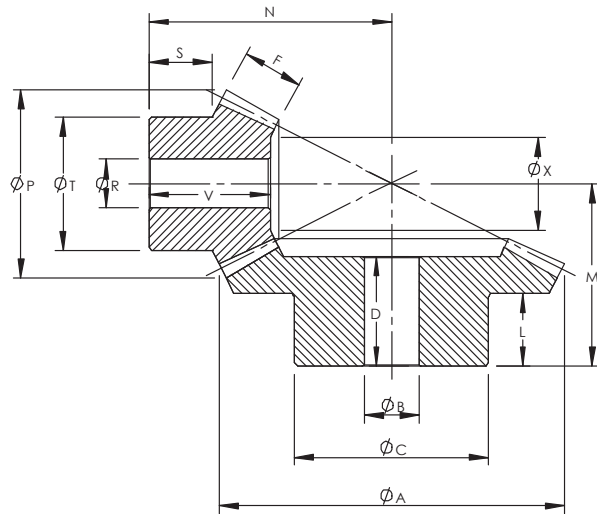
Dimensions in MM

Material - S1045 Steel
Tooth Pressure Angle - 20°



Catalogue No.	No. Teeth	Pitch in DP	Pitch Dia.	A	B	C	D	F	L	M
24D32M	24	32	0.750"	0.794"	0.250"	1/2"	0.35"	5/32"	0.20"	0.650"
24D24M	24	24	1.000"	1.059"	0.375"	3/4"	1/2"	1/4"	9/32"	0.875"
20D16M	20	16	1.250"	1.338"	0.438"	1"	3/4"	5/16"	1/2"	1.250"
15D12M	15	12	1.250"	1.368"	0.438"	1"	3/4"	5/16"	1/2"	1.250"
18D12M	18	12	1.500"	1.618"	0.500"	1.1/4"	1"	7/16"	5/8"	1.500"
21D12M	21	12	1.750"	1.867"	0.500"	1.3/8"	1.1/16"	7/16"	11/16"	1.750"
24D12M	24	12	2.000"	2.118"	0.625"	1.5/8"	1.1/4"	1/2"	13/16"	2.000"
20D10M	20	10	2.000"	2.141"	0.625"	1.5/8"	1.1/4"	1/2"	13/16"	2.000"
25D10M	25	10	2.500"	2.641"	0.750"	2"	1.1/2"	5/8"	15/16"	2.437"
24D8M	24	8	3.000"	3.176"	0.750"	2.1/4"	1.5/8"	3/4"	1.1/16"	2.750"
24D8MX	24	8	3.000"	3.176"	1.000"	2.1/4"	1.5/8"	3/4"	1.1/16"	2.750"
28D8M	28	8	3.500"	3.676"	1.000"	2.1/2"	2"	7/8"	1.1/8"	3.250"
32D8M	32	8	4.000"	4.176"	1.000"	3"	2.3/16"	1"	1.5/16"	3.625"
24D6M	24	6	4.000"	4.235"	1.000"	3"	2.3/16"	1"	1.5/16"	3.625"
25D5M	25	5	5.000"	5.283"	1.125"	3.3/4"	2.3/4"	1.1/4"	1.5/8"	4.500"
24D4M	24	4	6.000"	6.353"	1.250"	4.1/2"	3.1/8"	1.1/2"	1.3/4"	5.250"
21D3M	21	3	7.000"	7.471"	2.000"	5.1/2"	3.1/2"	1.3/4"	2"	6.000"

Dimensions in Inches

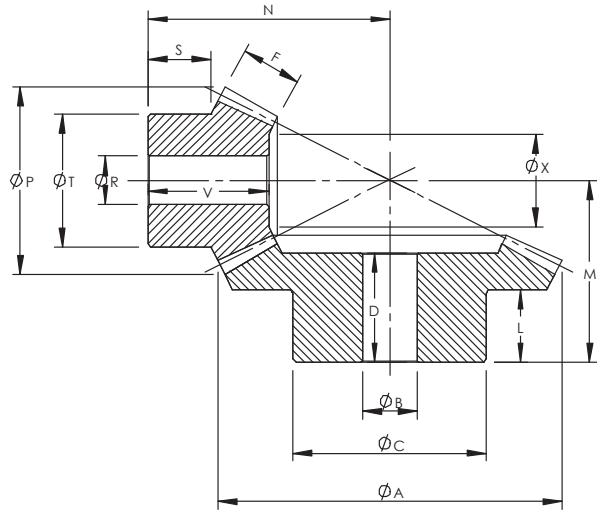


Material - S1045 Steel
Tooth Pressure Angle - 20°

Ratio 1 : 2

Cat No.	No. Teeth	Pitch MOD	Pitch Dia.	A	B	C	D	F	L	M	N	P	R	S	T	V
32M1.5P16	16	1.5	24	49.3	12	32	17	8	10	27.45	35.83	26.7	10	11.3	21	18
	32		8													
32M2.0P16	16	2.0	32	65.8	12	40	21	10	10	35.21	45.41	35.6	10	12.2	26	21
	32		10													
32M2.5P16	16	2.5	40	82.2	15	50	20	12	10	39.10	55.88	44.4	12	14.4	34	25
	32		12													
32M3.0P16	16	3.0	48	98.7	15	60	24	15	10	45.31	61.64	53.4	15	11.6	40	25
	32		15													
32M3.5P16	16	3.5	56	115.1	20	70	24	18	10	38.77	72.33	62.3	15	14.4	48	30
	32		18													
32M4.0P16	16	4.0	64	131.6	20	80	24	20	10	52.42	80.81	71.1	20	13.4	50	32
	32		20													

Dimensions in MM.



Material - S1045 Steel
Tooth Pressure Angle - 20°

Ratio 1 : 3

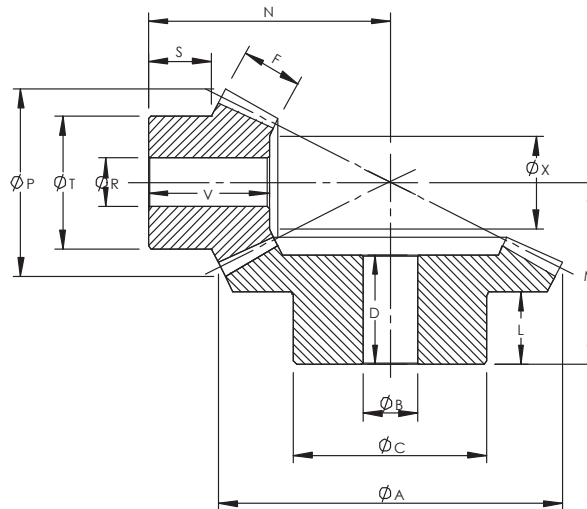
Cat No.	No. Teeth	Pitch in DP	Pitch Dia.	A	B	C	D	F	L	M	N	P	R	S	T	V
48M1.5P16	16	1.5	24	72.9	15	50	17	12	10	27.27	46.44	26.9	10	11.7	20	23
	48		72					12								
48M2.0P16	16	2.0	32	97.3	15	60	19	15	10	32.9	61.76	35.8	12	12.4	26	27
	48		96					15								
48M2.5P16	16	2.5	40	121.6	20	70	21	18	10	39.23	74.41	44.7	12	13	32	30
	48		120					18								
48M3.0P16	16	3.0	48	145.9	20	80	23	18	10	45.2	86.25	53.7	15	12.1	40	30
	48		144					18								
48M3.5P16	16	3.5	56	170.2	20	90	24	22	10	49.48	100.29	62.6	15	15	48	35.5
	48		168					22								
48M4.0P16	16	4.0	64	194.5	22	100	25	25	10	54.2	112.73	71.6	20	15.2	55	38.5
	48		192					25								

Dimensions in MM.

Ratio 1 : 4

Cat No.	No. Teeth	Pitch in DP	Pitch Dia.	A	B	C	D	F	L	M	N	P	R	S	T	V
64M1.5P16	16	1.5	24	96.7	15	70	19	12	10	30.53	61.02	26.9	10	12.2	18	24
	64		96					12								
64M2.0P16	16	2.0	32	129	20	80	20	15	10	35.79	73.07	35.9	12	8.2	25	23
	64		128					15								
64M2.5P16	16	2.5	40	161.2	20	90	24	18	10	42.77	92.49	44.9	15	8.2	30	26
	64		160					18								
64M3.0P16	16	3.0	48	193.5	20	100	24	22	10	46.41	108.05	53.8	15	11	40	32
	64		192					22								
64M3.5P16	16	3.5	56	225.7	25	100	43	25	22	69.32	132.13	62.8	15	19.1	48	43
	64		224					25								
64M4.0P16	16	4.0	64	257.9	28	120	42	30	20	71.72	148.21	71.7	20	18.5	50	48
	64		256					30								

Dimensions in MM.



Material - S1045 Steel
Tooth Pressure Angle - 20°

Ratio 1 : 2

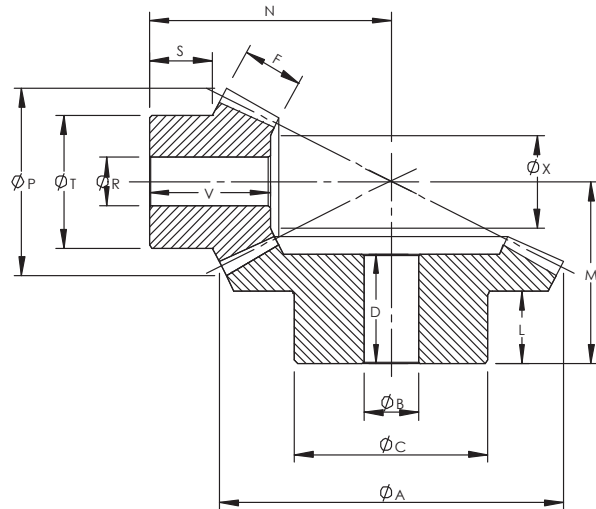
Cat No.	No. Teeth	Pitch in DP	Pitch Dia.	A	B	C	D	F	L	M	N	P	R	S	T	V	X
36D12P18	18	12	1.500"					9/16"			2.125"	1.694"	0.500"	9/16"	1.1/4"	1.1/16"	7/8"
	36	12	3.000"	3.052"	0.625"	2.1/4"	1"	9/16"	1/2"	1.625"							
48D12P24	24	12	2.000"					3/4"			2.875"	2.193"	0.500"	11/16"	1.1/2"	1.7/16"	1.3/16"
	48	12	4.000"	4.052"	0.625"	2.3/4"	1.3/16"	3/4"	5/8"	2.000"							
40D10P20	20	10	2.000"					3/4"			3.000"	2.233"	0.625"	15/16"	1.3/4"	1.5/8"	1.3/16"
	40	10	4.000"	4.062"	0.750"	2.1/2"	1.1/2"	3/4"	3/4"	2.250"							
50D10P25	25	10	2.500"					1"			3.500"	2.733"	0.750"	7/8"	2"	1.13/16"	1.7/16"
	50	10	5.000"	5.062"	0.875"	3.1/4"	1.11/16"	1"	1"	2.625"							
32D8P16	16	8	2.000"					3/4"			3.000"	2.291"	0.750"	7/8"	1.3/4"	1.5/8"	1.3/16"
	32	8	4.000"	4.078"	0.875"	2.3/4"	1.5/8"	3/4"	1"	2.500"							
40D8P20	20	8	2.500"					1"			3.750"	2.791"	0.750"	1.1/8"	2.1/8"	2.1/16"	1.7/16"
	40	8	5.000"	5.078"	1.000"	3.1/2"	1.15/16"	1"	1.1/4"	2.875"							
36D6P18	18	6	3.000"					1.1/8"			4.375"	3.387"	1.000"	1.1/4"	2.1/2"	2.1/4"	1.13/16"
	36	6	6.000"	6.104"	1.125"	4"	2.1/4"	1.1/8"	1.1/2"	3.500"							
42D6P21	21	6	3.500"					1.1/4"			5.000"	3.887"	1.000"	1.5/16"	2.3/4"	2.1/2"	2.1/8"
	42	6	7.000"	7.104"	1.125"	4"	2.1/4"	1.1/4"	1.1/2"	3.750"							

Dimensions in Inches.

Ratio 2 : 3

Cat No.	No. Teeth	Pitch in DP	Pitch Dia.	A	B	C	D	F	L	M	N	P	R	S	T	V	X
27D12P18	18	12	1.500"					1/2"			1.875"	1.669"	0.500"	5/8"	1.1/4"	1.1/8"	13/16"
	27	12	2.250"	2.322"	0.625"	1.5/8"	1.3/16"	1/2"	3/4"	1.750"							
30D10P20	20	10	2.000"					5/8"			2.500"	2.203"	0.625"	7/8"	1.3/4"	1.7/16"	1.3/16"
	30	10	3.000"	3.086"	0.625"	2.1/4"	1.1/2"	5/8"	1"	2.250"							
30D8P20	20	8	2.500"					3/4"			3.000"	2.754"	0.750"	15/16"	2"	1.5/8"	1.1/2"
	30	8	3.750"	3.858"	0.875"	2.3/4"	1.5/8"	3/4"	1"	2.625"							

Dimensions in Inches.



Material - S1045 Steel
Tooth Pressure Angle - 20°

Ratio 1 : 3

Cat No.	No. Teeth	Pitch in DP	Pitch Dia.	A	B	C	D	F	L	M	N	P	R	S	T	V	X
45D12P15	15	12	1.250"					5/8"			2.500"	1.464"	0.375"	9/16"	1"	1.3/16"	3/4"
	45	12	3.750"	3.784"	0.625"	2.1/4"	1.1/16"	5/8"	5/8"	1.625"							
45D10P15	15	10	1.500"					3/4"			3.000"	1.756"	0.500"	5/8"	1.1/4"	1.3/8"	7/8"
	45	10	4.500"	4.540"	0.750"	2.3/4"	1.5/16"	3/4"	3/4"	2.000"							
48D8P16	16	8	2.000"					1"			4.000"	2.322"	0.625"	15/16"	1.5/8"	1.7/8"	1.3/16"
	48	8	6.000"	6.051"	0.750"	3.3/4"	1.5/8"	1"	1"	2.500"							
45D6P15	15	6	2.500"					1.1/4"			5.250"	2.930"	0.875"	1.3/8"	2.1/8"	2.5/8"	1.7/16"
	45	6	7.500"	7.568"	1.125"	4.1/2"	2"	1.1/4"	1.1/4"	3.125"							

Dimensions in Inches.

Ratio 1 : 4

Cat No.	No. Teeth	Pitch in DP	Pitch Dia.	A	B	C	D	F	L	M	N	P	R	S	T	V	X
60D12P15	15	12	1.250"					3/4"			3.125"	1.472"	0.375"	9/16"	1"	1.3/8"	3/4"
	60	12	5.000"	5.025"	0.625"	3"	1.1/8"	3/4"	3/4"	1.750"							
60D10P15	15	10	1.500"					3/4"			3.875"	1.767"	0.500"	13/16"	1.1/4"	1.5/8"	15/16"
	60	10	6.000"	6.030"	0.750"	3.1/2"	1.1/2"	3/4"	7/8"	2.250"							
64D8P16	16	8	2.000"					1"			5.250"	2.333"	0.625"	1.3/16"	1.5/8"	2.1/4"	1.5/16"
	64	8	8.000"	8.038"	0.875"	4.1/2"	1.3/4"	1"	15/16"	2.750"							
60D6P15	15	6	2.500"					1.3/8"			6.750"	2.945"	0.750"	1.5/8"	2"	3.1/16"	1.9/16"
	60	6	10.000"	10.051"	1.000"	4.1/2"	2.1/16"	1.3/8"	1.3/16"	3.250"							

Dimensions in Inches.

Ratio 1 : 6

Cat No.	No. Teeth	Pitch in DP	Pitch Dia.	A	B	C	D	F	L	M	N	P	R	S	T	V	X
90D12P15	15	12	1.250"					7/8"			4.375"	1.478"	0.375"	9/16"	1.1/8"	1.1/2"	7/8"
	90	12	7.500"	7.517"	0.750"	4.1/2"	1.1/4"	7/8"	5/8"	1.875"							
90D10P15	15	10	1.500"					1"			5.250"	1.774"	0.500"	11/16"	1.1/4"	1.3/4"	1"
	90	10	9.000"	9.020"	0.875"	5"	1.1/2"	1"	3/4"	2.250"							

Dimensions in Inches.



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