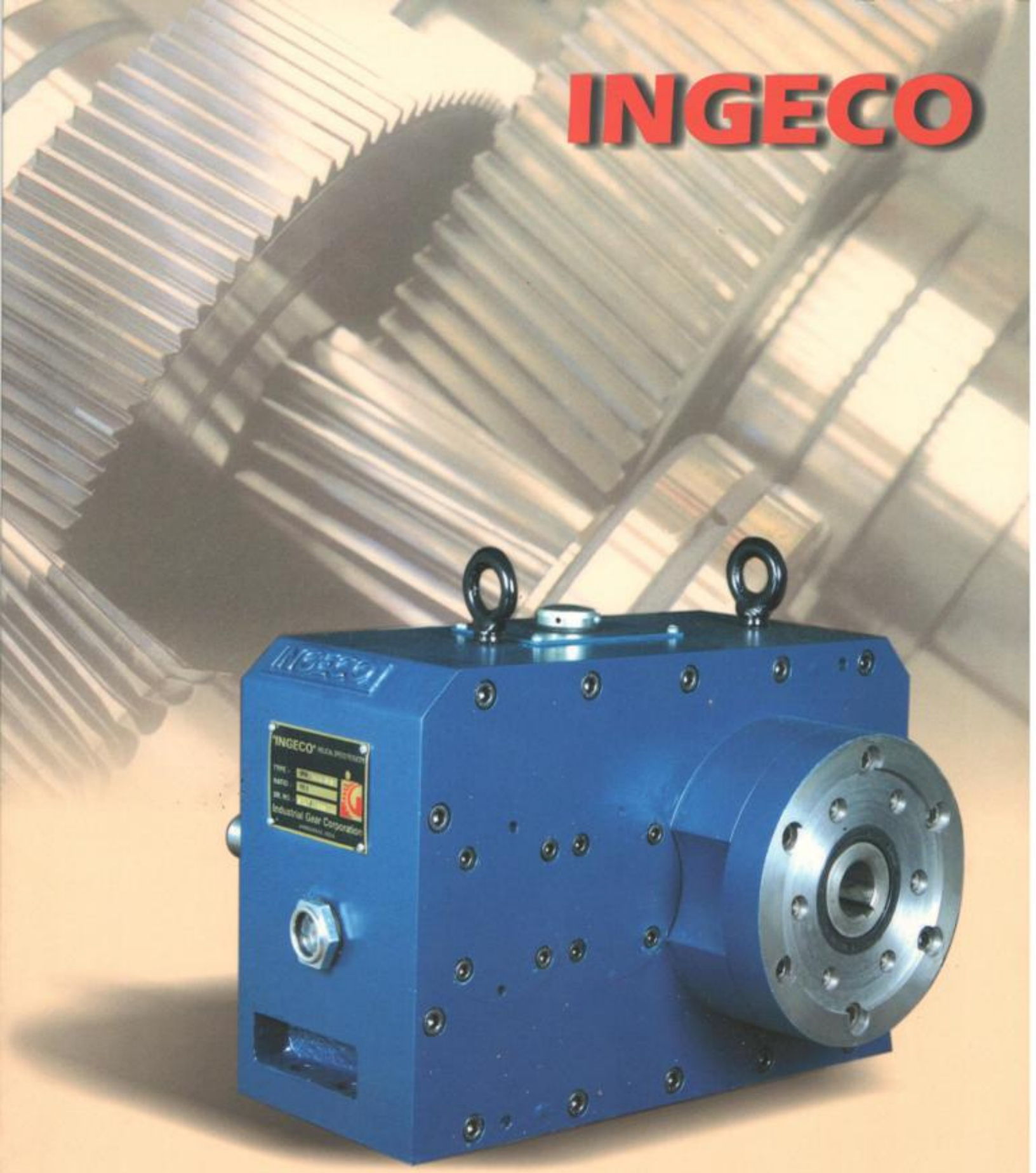
INGECO



HELICAL SPEED REDUCER WITH BUILT IN THRUST HOUSING

ISO 9001 Registered KPMG The Quality Advantage

MGMT. SYS. RvA C216

INGECO

'INGECO' Helical Speed Reducer with Built in Thrust Housing

'INGECO' IPH series Helical Speed Reducers is the modem development and designed specifically for use on systems for SINGLE SCREW EXTRUSION of various materials such as plastic and rubber. It is also widely used in Plastic Blow Molding Machines.

It is an innovative and progressive approach to overcome the problems of separate alignment of electric motor, gearbox and transmission line. Spherical thrust bearing Housing within the Gearbox eliminates the requirement of separate thrust bearing housing and will provide capacity to take screw thrust.

All Gears being Profile Ground on Imported **Csepel** Multi Flank Gear Grinder upto DIN Class 6/8

This convenient thrust arrangement is integrally mounted within the single piece reducer unit to produce a rugged, compact package for all your extruder requirements. The inline direct assembly of hollow output shaft to screw barrel of the machine saves ample space and makes installation easy. The screw can be removed without disturbing barrel and reducer.

'INGECO' IPH Series two stage Helical Reducers have modular design with a nominal reduction ratio ranging between 10:1 and 15:1

The single piece close grain C.I. Casing gives a rigid robust construction and incorporates high precision Case Hardened and Ground Helical Gear Train for improved Torque Transmission.

IPH Series reducers are available in 8 sizes suited for upto 80 H.P. and screw diameters of upto 150 mm.

Our Extruder gearboxes are designed for maximum screw pressures. The Spherical Thrust Bearing/Taper roller bearing system carries reverse thrust load generated by differential pressure during molding process.

Important features of this design:

- Rigid Single Piece Thrust Housing
- Spherical Thrust / Taper roller bearings
- Dual output shaft oil seals for severe continuous duty applications
- Gear ratios of 10:1 and 15:1
- Water cooling option available which is In-built

INGECO Gearbox fitted in Blow Molding machine

Water Cooling

INGECO Reducer's thermal capacity can be increased by the addition of water cooling coils. INGECO water cooled units are extremely compact requiring no more space than non cooled units of the same centre distance.

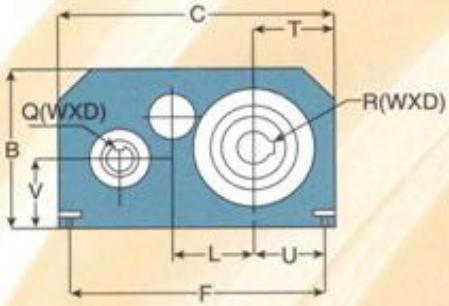
Selection Procedure:

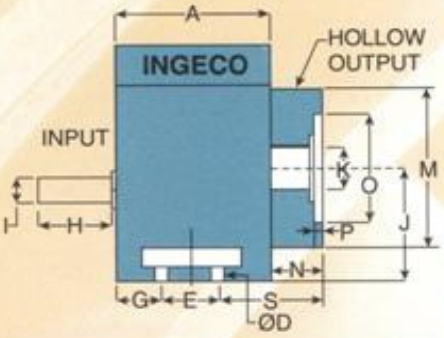
Based on the screw size, shank size and your motor input power, select the appropriate reducer size from the extruder drive selection table.

"I.P.H" SERIES DATA

No.	Model	Screw Diameter	Shank Diameter	Motor Rating at 96 O/p rpm	R.H./ L.H. Version	Water Cooling Available
01	IPH-200	30 mm	25.4 mm	For 2 H.P.	R.H. / L.H.	×
02	IPH-300	35 mm	28.57 mm	For 3 H.P.	R.H. / L.H.	×
03	IPH-575	45 mm	35 mm	For 5 to 7.5 H.P.	R.H. / L.H.	×
04	IPH-1000	50 mm	38.1 mm	For 10 to 12.5 H.P.	R.H. / L.H.	×
05	IPH-2000	65 mm	50.8 mm	For 15 to 20 H.P.	R.H.	✓
06	IPH-2000/3000	75 mm	55 mm	For 25 to 30 H.P.	R.H.	✓
07	IPH-3000	90 mm	60 mm	For 35 to 50 H.P.	R.H.	✓
08	IPH-6000	120 mm to150 mm	90 mm	For 55 to 80 H.P.	R.H.	✓

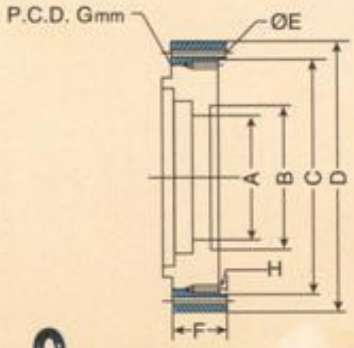
The above Shank Diameter can be changed based on the machine requirement





OVERALL DIMENSIONS & FOUNDATION DETAILS

TYPE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q (WXD)	R (WXD)	S	T	U	V
IPH 200	160	190	285	14	49	258	42	70	22	95	25.4	80.9	160	80	152.4	5	6x3	6.35 x 3.17	149	93	79	95
IPH 300	160	229	369	14	49	345	42	80	27	118	28.57	112.6	167	74.5	152.4	5	8x4	6.35 x 3.17	138.5	119	107	118
IPH 575	180	282	430	17	50	402	48	90	32	141	34.92	137	195	85.5	152.4	5	10x5.2	7.93 x 3.96	162.5	135	121	141
IPH 1000	200	340	535	22	62	498	50	100	36	175	38.1	169	250	97.5	152.4	5	12x6	9.52 x 4.76	180.5	161	162.5	175
IPH 2000	265	400	570	25.4	100	522	56	110	40	200	50.8	183	280	146	203.2	6.3	12x6.3	12.7 x 6.35	248.5	200	176	145
IPH 2000/3000	265	400	570	25.4	100	522	56	110	40	200	55	183	320	172	254	7	12x6.3	15.87 x 7.93	274	200	176	145
IPH 3000	295	450	700	28	100	640	67.5	120	45	225	60	221	320	165	254	7	14x5.8	15.87 x 7.93	285.5	225	196.5	170
IPH 6000	355	530	815	30	180	750	50	170	60	265	90	252	380	187	320	7	18x7	25 x 12.5	312	270	235	210



FLANGE DIMENSIONS

TYPE	A	B	C	D	E	F	G (P.C.D.)	H	I (THREAD)
IPH 200	72	88.9	152.4	160	13	32.5	125	5	M-12
IPH 300	72	88.9	152.4	167	13	32.5	127	5	M-12
IPH 575	80	90	152.4	195	13	32.5	150	5	M-12
IPH 1000	95	114.3	203.2	250	13	39.5	177.8	5	M-12
IPH 2000	125	136	203.2	280	15	52	177.8	7	1/2"BSW
IPH 2000/3000	140	165	254	320	15	52	215.9	7	5/8"BSW
IPH 3000	140	165	254	320	15	52	215.9	7	5/8"BSW
IPH 6000	175	210	320	380	17	69	255	7	3/4"BSW

Lubricants:

Simple, positive splash type lubrication system supplies all moving parts with continuous ample oil flow. Lubricating oils for the use in INGECO Drives must be selected from INGECO's approved list of lubricants available in the Gearbox manual which is supplied along with each unit.

The exceptional performance, rugged reliability, and compact size of the INGECO Extruder Drive reducer unit makes this your best choice for long life and low maintenance.
The Gearbox finds its vast application in Plastic and Rubber Extruders and also in Plastic Blow Molding machines.

'INGECO' Lifting Mechanism (Screw Jack)

Welcome to the world of "lift, turn and move".

Where ever human force is not enough to take, move, lift and position loads the task of INGECO SCREW JACKS Starts. INGECO Screw Jack or Lifting Mechanism is widely used in Blow Molding and Extruder machines to lift and position the screw barrel and other heavy accessories when a mould change is required in the machine.

INGECO lifting mechanism offers positive mechanical actuation, precise positioning, and uniform lifting speeds and can be used to push, or position loads, apply pressure or as linear actuators. All units are suitable for intermittent operation providing that the housing temperature including ambient is not lower than -30°C. or higher than +95°C. Factory supplied lifetime synthetic grease in standard units will operate in this range.
Our standard model is available for almost any requirement and application. They may be individually used or in a set of two to four gearboxes, depending on the load with a connecting rod connecting the units, with the help of universal joints. Bevel gears are used in case of two or more units to transmit the torque from the motor mounted unit. INGECO's versatile Mechanical screw jacks are available from its standard range and can lift and precisely position all kinds of loads in capacities from 1 ton to 10 tons.

INGECO Lifting Model	LM-2	LM-5
Lifting Capacity	Upto 3 Tons	Upto 10 Tons
Effective Height (mm)	500	650
No. of units	02 Nos	04 Nos (C Section)
Diameter of Lifting Screw	45 mm	87 mm
Total Ratio	192: 1	150: 1
Screw Speed per minute	47.6 mm	96 mm
Motor Input Power	2 H. P.	5 H. P.

This mechanism offers the combination of design flexibility and economy. Many of our Screw Jacks are operating successfully in a wide variety of industries. This new technology finds its application in paper, rubber and Plastic Equipments, food processing, glass, textiles, Tube Straightening machine etc. The applications are wide, varied and ever increasing as pneumatic and hydraulic technologies are replaced by what can be a cleaner, quieter and more reliable solution.

Important features of INGECO Screw Jack design:

- Incorporates an alloy steel worm & high strength bronze worm gear (drive sleeve)
- Worm shaft is supported on anti-friction tapered roller bearings
- Drive sleeve is supported on antifriction ball thrust bearings
- Lifting screw is made of high-grade toughened alloy steel

The screw has to be lubricated from time to time for smooth operation. When the load is more and screw is only support for the load, it is considered unguided and so providing guides is recommended and are necessary when load is more.
A wide range of options is available, including protective bellows to protect the screw from dust and other material, a hand wheel for manual operation, and a limit switch. All units are provided with lifetime synthetic grease and hence does not need any lubrication.

INGECO Gears Pvt. Limited

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