



**High Performance
Quality Products..**

***For today's
world of
Chucks***



1. Our Chucks are perfectly designed and made out of selected steel as per international standards and specifications. The continuous research and development have elevated the products to the unique standards of precision and excellence. Placing a firm emphasis on quality and rigorous standards of inspection are exercised at every stage of production to ensure that each and every product conforms to an embodiment of engineering perfection.
2. If you require.....
Chucks designed to meet the specific requirements.
3. You will receive.....
A well conceived design with the latest manufacturing techniques and under tightly controlled inspection standards.
4. Result.....
 1. Unsurpassed accuracy.
 2. High gripping power.
 3. Reliability Increased productivity.

All at a competitive price and backed-up by an efficient service organization.



TUVNORD



Our Product Range:

Power Chucks (Closed Center, Open Center & Eccentric Compensation), Rotary Cylinders (Closed Center High Speed & Closed Center Slow Speed), Direct Mount Self Centering Lathe Chucks, 4 Jaw Independent Lathe Chucks, Drill Key Chucks, Drill Arbors, Drill Sleeves, Revolving Center, Dead Center, Back Plates, Precision Machine Vice and Machine Tool Accessories.

CERTIFICATE



Management system as per
DIN EN ISO 9001 : 2000

In accordance with TUV CERT procedures, it is hereby certified that

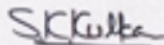
SHARP CHUCKS AND MACHINES LTD.
A-17/18, Industrial Development Colony,
Jalandhar - 144004, Punjab, India

applies a quality system in line with the above standard for the following scope

**Manufacturing of Lathe Chucks, Drill Chucks
& Machine Tool Accessories**

Certificate Registration No. 44 100 001875-E3
Audit Report No. 2.5-2410/2000

Valid until 28.12.2009
Initial certification 29.12.2000


TUV CERT Certification Body
at TÜV NORD CERT GmbH

Mumbai, 04.01.2007

This certification was conducted in accordance with the TÜV CERT auditing and certification procedures and is subject to regular surveillance audits.

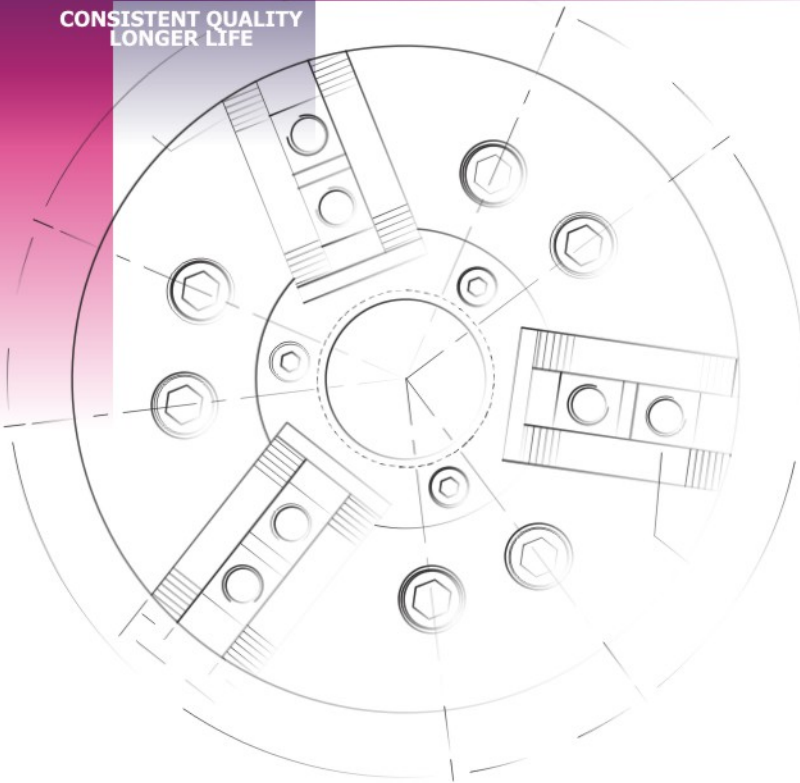
TUV India Pvt. Ltd., 801, Raheja Plaza - 1, L.B.S. Marg, Ghokopar (W), Mumbai - 400 086, India www.tuvindia.co.in



Our Quality Policy is:

Our prime motto is customer satisfaction by prompt delivery of quality products at competitive price.

Also we are committed to adhere regulatory & statutory requirements and shall continually improve Quality Management System.



For over 40 years, **SHARP** company has continuously developed itself into one of the best performing Lathe Chuck & Machine Tool Accessories manufacturer all over the world.

SHARP products are perfectly designed and made out of selected steel as per international standard and specifications.

The continuous Research and Development have elevated the product to the unique standard of precision and excellence.

Placing a firm emphasis on Quality and rigorous standard of inspection are exercised at every stage of production to ensure that each and every product confirms to an embodiment of engineering perfection.

SHARP products are exported to various countries of world. Despite phenomenal growth in the recent years, we are still continuing to upgrade and extend our product range according to our customer's requirements.

SHARP's commitment is to deliver the best quality-best price and time bound deliveries.

As a manufacturer we believe that the only way to win customer's satisfaction is to provide good product and service.

The Quality Assurance system was successfully audited by the **TUV** management service a part of the composite certificate program.

Convenience plays a vital role in today's fast paced life.

Smooth and complete access to product information is crucial for our business transactions.

Keeping up with our belief, we take pleasure in introducing our new catalogue no 09-2009. Compiled and designed exclusively for privileged customer like you. Catalogue No 09-2009 is a single source of information on the entire range of products offered by **SHARP**.



Dear Customer,

With the help of this catalogue no. 09-2009 you can place your orders direct to us or to our dealers nearby. Kindly specify the TYPE and the ORDER CODE for quick and immediate deliveries.

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Section 1



Lathe Chucks

Constructional Features of Self Centring Lathe Chucks:

- Body** : High tensile Cast Iron alloyed with chromium, nickel and manganese for better resistance. Hardness upto 210 BHN.
: SG Iron body in 500/7 grade for higher RPM and longer life. Hardness upto 210 BHN.
: Steel body, Nickel Chrome alloy steel with Jaw ways and Knob hardened and ground for better accuracy, life and RPM. Hardness upto 45 HRC.
- Scroll** : Scroll is made from high tensile alloy steel and drop forged, it is hardened and precision machined for higher accuracy. Hardness upto 35 HRC.
- Jaws** : Jaws are made from low carbon alloy steel and case hardened and ground for accuracy and smooth fitting. Jaws teeth are ground from both the sides for higher accuracy and pitch. Hardness upto 62 HRC.
- Pinions** : Pinions are made from special alloy steel and case hardened upto 50 HRC.
- Key** : The chucks operating key of suitable strength is provided with every chuck.
- Mounting bolts** : A set of three / four / six mounting bolts are provided with every chuck.



Salient Features:

- Maximum runout 0.05mm.
- Tool room accuracy in production.
- Costly fixtures eliminated.
- Inexpensive to install.

Long life and rigid grip due to jaw teeth are ground and scroll threads are precision machined.

Lathe Chucks



Self Centering Lathe Chucks (Standard Jaws)

Self centering Lathe Chucks are geared scroll chucks for use on lathes, rotary tables, dividing heads, milling machines etc. These chucks are supplied with standard accessories.

Self Centering Lathe Chucks (Master Top Jaws)

Self centering Lathe Chucks are geared scroll chucks. The jaws are split into two parts, Master Jaw (Base Jaw) and Top Jaws. The top jaws are mounted on base jaws with allen bolts. Top Jaws can be replaced with Soft Jaws also.

Self Centering Lathe Chucks, Double Jaw Guide (Standard Jaws)

Double jaw guide self centering lathe chucks (Standard Jaw) are geared scroll chucks. There are two slots in body and jaws to provide more gripp and strength.

Self Centering Lathe Chucks, Double Jaw Guide (Master Top Jaws)

Double jaw guide self centering lathe chucks (Master Top Jaw) are geared scroll chucks. There are two slots in body and base jaws to provide more gripp and strength. The jaws are split into two parts, Master Jaw (Base Jaw) and Top Jaws. The top jaws are mounted on base jaws with allen bolts. Top Jaws can be replaced with Soft Jaws also.

Four Jaw Independent chuck

The four jaw Independent Chuck, only jaws are adjustable individually by screw. These chucks are used for irregular shapes or where there are particular high accuracy required.


SHARP®

 CONSISTENT QUALITY
LONGER LIFE


Self Centering Lathe Chucks Standard Jaws

Standard Accessories:

 Outside Hard Solid Jaws - 1 Set
 Inside Hard Solid Jaws - 1 Set
 Chuck Operating Key - 1 Pc.
 Mounting Bolts - 1 Set

Optional Accessories:

 Soft Solid Jaws - 1 Set
 Master Base Jaws - 1 Set
 2 Pc. Jaws (Master Base+Top Soft) - 1 Set

Type 2100 (Single Guide Standard Jaw Chuck)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	C.I. Body		S.G. Body		Steel Body	
				3 Jaw	4 Jaw	3 Jaw	4 Jaw	3 Jaw	4 Jaw
80	3 1/4"	----	16	1013080	1014080	2013080	2014080	3013080	3014080
100	4"	----	20	1013100	1014100	2013100	2014100	3013100	3014100
125	5"	----	32	1013125	1014125	2013125	2014125	3013125	3014125
160	6 1/4"	----	42	1013160	1014160	2013160	2014160	3013160	3014160
200	8"	----	55	1013200	1014200	2013200	2014200	3013200	3014200
250	10"	----	76	1013250	1014250	2013250	2014250	3013250	3014250
315	12 1/2"	----	105	1013315	1014315	2013315	2014315	3013315	3014315
350	13 3/4"	----	115	1013350	1014350	2013350	2014350	3013350	3014350
400	15 3/4"	----	136	1013400	1014400	2013400	2014400	3013400	3014400

 For Technical Specifications,
Please See **Page No.12**

Type 2200 (Single Guide Standard Jaw Chuck with A2 Type Plates)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	C.I. Body		S.G. Body		Steel Body	
				3 Jaw	4 Jaw	3 Jaw	4 Jaw	3 Jaw	4 Jaw
125	5"	A2-4	32	10231254	10241254	20231254	20241254	30231254	30241254
160	6 1/4"	A2-4	42	10231604	10241604	20231604	20241604	30231604	30241604
160	6 1/4"	A2-5	42	10231605	10241605	20231605	20241605	30231605	30241605
200	8"	A2-4	55	10232004	10242004	20232004	20242004	30232004	30242004
200	8"	A2-5	55	10232005	10242005	20232005	20242005	30232005	30242005
200	8"	A2-6	55	10232006	10242006	20232006	20242006	30232006	30242006
250	10"	A2-6	76	10232506	10242506	20232506	20242506	30232506	30242506
250	10"	A2-8	76	10232508	10242508	20232508	20242508	30232508	30242508
315	12 1/2"	A2-6	105	10233156	10243156	20233156	20243156	30233156	30243156
315	12 1/2"	A2-8	105	10233158	10243158	20233158	20243158	30233158	30243158
400	15 3/4"	A2-8	136	10234008	10244008	20234008	20244008	30234008	30244008
400	15 3/4"	A2-11	136	102340011	102440011	202340011	202440011	302340011	302440011


Type 2300 (Single Guide Standard Jaw Chuck with D1 Type Plates)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	C.I. Body		S.G. Body		Steel Body	
				3 Jaw	4 Jaw	3 Jaw	4 Jaw	3 Jaw	4 Jaw
125	5"	D1-4	32	10331254	10341254	20331254	20341254	30331254	30341254
160	6 1/4"	D1-4	42	10331604	10341604	20331604	20341604	30331604	30341604
160	6 1/4"	D1-5	42	10331605	10341605	20331605	20341605	30331605	30341605
200	8"	D1-4	55	10332004	10342004	20332004	20342004	30332004	30342004
200	8"	D1-5	55	10332005	10342005	20332005	20342005	30332005	30342005
200	8"	D1-6	55	10332006	10342006	20332006	20342006	30332006	30342006
250	10"	D1-6	76	10332506	10342506	20332506	20342506	30332506	30342506
250	10"	D1-8	76	10332508	10342508	20332508	20342508	30332508	30342508
315	12 1/2"	D1-6	105	10333156	10343156	20333156	20343156	30333156	30343156
315	12 1/2"	D1-8	105	10333158	10343158	20333158	20343158	30333158	30343158
400	15 3/4"	D1-8	136	10334008	10344008	20334008	20344008	30334008	30344008
400	15 3/4"	D1-11	136	103340011	103440011	203340011	203440011	303340011	303440011





High Performance Quality Products...

Self Centering Lathe Chucks Master Top Jaws



Standard Accessories :

Hard Sectional Jaws
(Master Jaw + Reversible Top Hard) - 1 Set
Top Soft Jaws - 1 Set
Chuck Operating Key - 1 Pc.
Allen Key - 1 Pc.
Mounting Bolts - 1 Set

Optional Accessories :

Outside Hard Solid Jaws- 1 Set
Inside Hard Solid Jaws - 1 Set
Soft Solid Jaws - 1 Set

For Technical Specifications,
Please See **Page No.13**

Type 3100 (Single Guide Master Top Jaw Chuck)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	C.I. Body		S.G. Body		Steel Body	
				3 Jaw	4 Jaw	3 Jaw	4 Jaw	3 Jaw	4 Jaw
125	5"	----	32	1113125	1114125	2113125	2114125	3113125	3114125
160	6 1/4"	----	42	1113160	1114160	2113160	2114160	3113160	3114160
200	8"	----	55	1113200	1114200	2113200	2114200	3113200	3114200
250	10"	----	76	1113250	1114250	2113250	2114250	3113250	3114250
315	12 1/2"	----	105	1113315	1114315	2113315	2114315	3113315	3114315
350	13 3/4"	----	115	1113350	1114350	2113350	2114350	3113350	3114350
400	15 3/4"	----	136	1113400	1114400	2113400	2114400	3113400	3114400

Type 3200 (Single Guide Master Top Jaw Chuck with A2 Type Plates)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	C.I. Body		S.G. Body		Steel Body	
				3 Jaw	4 Jaw	3 Jaw	4 Jaw	3 Jaw	4 Jaw
125	5"	A2-4	32	11231254	11241254	21231254	21241254	31231254	31241254
160	6 1/4"	A2-4	42	11231604	11241604	21231604	21241604	31231604	31241604
160	6 1/4"	A2-5	42	11231605	11241605	21231605	21241605	31231605	31241605
200	8"	A2-4	55	11232004	11242004	21232004	21242004	31232004	31242004
200	8"	A2-5	55	11232005	11242005	21232005	21242005	31232005	31242005
200	8"	A2-6	55	11232006	11242006	21232006	21242006	31232006	31242006
250	10"	A2-6	76	11232506	11242506	21232506	21242506	31232506	31242506
250	10"	A2-8	76	11232508	11242508	21232508	21242508	31232508	31242508
315	12 1/2"	A2-6	105	11233156	11243156	21233156	21243156	31233156	31243156
315	12 1/2"	A2-8	105	11233158	11243158	21233158	21243158	31233158	31243158
400	15 3/4"	A2-8	136	11234008	11244008	21234008	21244008	31234008	31244008
400	15 3/4"	A2-11	136	112340011	112440011	212340011	212440011	312340011	312440011

Type 3300 (Single Guide Master Top Jaw Chuck with D1 Type Plates)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	C.I. Body		S.G. Body		Steel Body	
				3 Jaw	4 Jaw	3 Jaw	4 Jaw	3 Jaw	4 Jaw
125	5"	D1-4	32	11331254	11341254	21331254	21341254	31331254	31341254
160	6 1/4"	D1-4	42	11331604	11341604	21331604	21341604	31331604	31341604
160	6 1/4"	D1-5	42	11331605	11341605	21331605	21341605	31331605	31341605
200	8"	D1-4	55	11332004	11342004	21332004	21342004	31332004	31342004
200	8"	D1-5	55	11332005	11342005	21332005	21342005	31332005	31342005
200	8"	D1-6	55	11332006	11342006	21332006	21342006	31332006	31342006
250	10"	D1-6	76	11332506	11342506	21332506	21342506	31332506	31342506
250	10"	D1-8	76	11332508	11342508	21332508	21342508	31332508	31342508
315	12 1/2"	D1-6	105	11333156	11343156	21333156	21343156	31333156	31343156
315	12 1/2"	D1-8	105	11333158	11343158	21333158	21343158	31333158	31343158
400	15 3/4"	D1-8	136	11334008	11344008	21334008	21344008	31334008	31344008
400	15 3/4"	D1-11	136	113340011	113440011	213340011	213440011	313340011	313440011





High Performance Quality Products...

Self Centering Lathe Chucks Double Jaw Guide Standard Jaw



Standard Accessories :
Out Side Hard Solid Jaws - 1 Set
Inside Hard Solid Jaws - 1 Set
Chuck Operating Key - 1 Pc.
Mounting Bolts - 1 Set

Optional Accessories :
Soft Solid Jaws - 1 Set
Master Base Jaws - 1 Set
2 Pc.Jaws (Master Base+Top Soft) - 1 Set

For Technical Specifications,
Please See **Page No.14**

Type 4100 (Double Guide Standard Jaw Chuck)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	C.I. Body		S.G. Body		Steel Body	
				3 Jaw	4 Jaw	3 Jaw	4 Jaw	3 Jaw	4 Jaw
125	5"	----	32	1213125	1214125	2213125	2214125	3213125	3214125
160	6 1/4"	----	42	1213160	1214160	2213160	2214160	3213160	3214160
200	8"	----	55	1213200	1214200	2213200	2214200	3213200	3214200
250	10"	----	76	1213250	1214250	2213250	2214250	3213250	3214250
315	12 1/2"	----	105	1213315	1214315	2213315	2214315	3213315	3214315
400	15 3/4"	----	136	1213400	1214400	2213400	2214400	3213400	3214400



Type 4200 (Double Guide Standard Jaw Chuck with A2 Type Plates)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	C.I. Body		S.G. Body		Steel Body	
				3 Jaw	4 Jaw	3 Jaw	4 Jaw	3 Jaw	4 Jaw
125	5"	A2-4	32	12231254	12241254	22231254	22241254	32231254	32241254
160	6 1/4"	A2-4	42	12231604	12241604	22231604	22241604	32231604	32241604
160	6 1/4"	A2-5	42	12231605	12241605	22231605	22241605	32231605	32241605
200	8"	A2-4	55	12232004	12242004	22232004	22242004	32232004	32242004
200	8"	A2-5	55	12232005	12242005	22232005	22242005	32232005	32242005
200	8"	A2-6	55	12232006	12242006	22232006	22242006	32232006	32242006
250	10"	A2-6	76	12232506	12242506	22232506	22242506	32232506	32242506
250	10"	A2-8	76	12232508	12242508	22232508	22242508	32232508	32242508
315	12 1/2"	A2-6	105	12233156	12243156	22233156	22243156	32233156	32243156
315	12 1/2"	A2-8	105	12233158	12243158	22233158	22243158	32233158	32243158
400	15 3/4"	A2-8	136	12234008	12244008	22234008	22244008	32234008	32244008
400	15 3/4"	A2-11	136	122340011	122440011	222340011	222440011	322340011	322440011



Type 4300 (Double Guide Standard Jaw Chuck with D1 Type Plates)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	C.I. Body		S.G. Body		Steel Body	
				3 Jaw	4 Jaw	3 Jaw	4 Jaw	3 Jaw	4 Jaw
125	5"	D1-4	32	12331254	12341254	22331254	22341254	32331254	32341254
160	6 1/4"	D1-4	42	12331604	12341604	22331604	22341604	32331604	32341604
160	6 1/4"	D1-5	42	12331605	12341605	22331605	22341605	32331605	32341605
200	8"	D1-4	55	12332004	12342004	22332004	22342004	32332004	32342004
200	8"	D1-5	55	12332005	12342005	22332005	22342005	32332005	32342005
200	8"	D1-6	55	12332006	12342006	22332006	22342006	32332006	32342006
250	10"	D1-6	76	12332506	12342506	22332506	22342506	32332506	32342506
250	10"	D1-8	76	12332508	12342508	22332508	22342508	32332508	32342508
315	12 1/2"	D1-6	105	12333156	12343156	22333156	22343156	32333156	32343156
315	12 1/2"	D1-8	105	12333158	12343158	22333158	22343158	32333158	32343158
400	15 3/4"	D1-8	136	12334008	12344008	22334008	22344008	32334008	32344008
400	15 3/4"	D1-11	136	123340011	123440011	223340011	223440011	323340011	323440011





High Performance Quality Products...

Self Centering Lathe Chucks Double Jaw Guide Master Top Jaws



Standard Accessories :
 Hard Sectional Jaws
 (Master Jaw + Reversible Top Hard) - 1 Set
 Top Soft Jaws - 1 Set
 Chuck Operating Key - 1 Pc.
 Allen Key - 1 Pc.
 Mounting Bolts - 1 Set

Optional Accessories :
 Outside Hard Solid Jaws- 1 Set
 Inside Hard Solid Jaws - 1 Set
 Soft Solid Jaws - 1 Set

For Technical Specifications,
 Please See **Page No.15**

Type 5100 (Double Guide Master Top Jaw Chuck)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	C.I. Body		S.G. Body		Steel Body	
				3 Jaw	4 Jaw	3 Jaw	4 Jaw	3 Jaw	4 Jaw
125	5"	----	32	1313125	1314125	2313125	2314125	3313125	3314125
160	6 ¼"	----	42	1313160	1314160	2313160	2314160	3313160	3314160
200	8"	----	55	1313200	1314200	2313200	2314200	3313200	3314200
250	10"	----	76	1313250	1314250	2313250	2314250	3313250	3314250
315	12 ½"	----	105	1313315	1314315	2313315	2314315	3313315	3314315
400	15 ¾"	----	136	1313400	1314400	2313400	2314400	3313400	3314400

Type 5200 (Double Guide Master Top Jaw Chuck with A2 Type Plates)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	C.I. Body		S.G. Body		Steel Body	
				3 Jaw	4 Jaw	3 Jaw	4 Jaw	3 Jaw	4 Jaw
125	5"	A2-4	32	13231254	13241254	23231254	23241254	33231254	33241254
160	6 ¼"	A2-4	42	13231604	13241604	23231604	23241604	33231604	33241604
160	6 ¼"	A2-5	42	13231605	13241605	23231605	23241605	33231605	33241605
200	8"	A2-4	55	13232004	13242004	23232004	23242004	33232004	33242004
200	8"	A2-5	55	13232005	13242005	23232005	23242005	33232005	33242005
200	8"	A2-6	55	13232006	13242006	23232006	23242006	33232006	33242006
250	10"	A2-6	76	13232506	13242506	23232506	23242506	33232506	33242506
250	10"	A2-8	76	13232508	13242508	23232508	23242508	33232508	33242508
315	12 ½"	A2-6	105	13233156	13243156	23233156	23243156	33233156	33243156
315	12 ½"	A2-8	105	13233158	13243158	23233158	23243158	33233158	33243158
400	15 ¾"	A2-8	136	13234008	13244008	23234008	23244008	33234008	33244008
400	15 ¾"	A2-11	136	132340011	132440011	232340011	232440011	332340011	332440011

Type 5300 (Double Guide Master Top Jaw Chuck with D1 Type Plates)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	C.I. Body		S.G. Body		Steel Body	
				3 Jaw	4 Jaw	3 Jaw	4 Jaw	3 Jaw	4 Jaw
125	5"	D1-4	32	13331254	13341254	23331254	23341254	33331254	33341254
160	6 ¼"	D1-4	42	13331604	13341604	23331604	23341604	33331604	33341604
160	6 ¼"	D1-5	42	13331605	13341605	23331605	23341605	33331605	33341605
200	8"	D1-4	55	13332004	13342004	23332004	23342004	33332004	33342004
200	8"	D1-5	55	13332005	13342005	23332005	23342005	33332005	33342005
200	8"	D1-6	55	13332006	13342006	23332006	23342006	33332006	33342006
250	10"	D1-6	76	13332506	13342506	23332506	23342506	33332506	33342506
250	10"	D1-8	76	13332508	13342508	23332508	23342508	33332508	33342508
315	12 ½"	D1-6	105	13333156	13343156	23333156	23343156	33333156	33343156
315	12 ½"	D1-8	105	13333158	13343158	23333158	23343158	33333158	33343158
400	15 ¾"	D1-8	136	13334008	13344008	23334008	23344008	33334008	33344008
400	15 ¾"	D1-11	136	133340011	133440011	233340011	233440011	333340011	333440011





High Performance Quality Products...

4 Jaw Independent Chuck



Standard Accessories :
Solid Reversible Jaws - 1 Set
Chuck Operating Key - 1 Pc.
Mounting Bolts - 1 Set

Type 6100 (Independent Jaw Chuck)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole		C.I. Body		S.G. Body		Steel Body
85	3 1/4"	----	20		----		----		3414085
100	4"	----	25		----		----		3414100
125	5"	----	32		----		----		3414125
160	6 1/4"	----	45		1414160		2414160		----
200	8"	----	50		1414200		2414200		----
250	10"	----	60		1414250		2414250		----
315	12 1/2"	----	75		1414315		2414315		----
350	13 3/4"	----	85		1414350		2414350		----
400	15 3/4"	----	100		1414400		2414400		----
450	17 3/4"	----	100		1414450		2414450		----
500	19 3/4"	----	110		1414500		2414500		----

For Technical Specifications, Please See **Page No.16**



Type 6200 (Independent Jaw Chuck with A2 Type Plates)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole		C.I. Body		S.G. Body		Steel Body
160	6 1/4"	A2-4	45		14241604		24241604		----
160	6 1/4"	A2-5	45		14241605		24241605		----
200	8"	A2-4	50		14242004		24242004		----
200	8"	A2-5	50		14242005		24242005		----
200	8"	A2-6	50		14242006		24242006		----
250	10"	A2-4	60		14242504		24242504		----
250	10"	A2-5	60		14242505		24242505		----
250	10"	A2-6	60		14242506		24242506		----
250	10"	A2-8	60		14242508		24242508		----
315	12 1/2"	A2-5	75		14243155		24243155		----
315	12 1/2"	A2-6	75		14243156		24243156		----
315	12 1/2"	A2-8	75		14243158		24243158		----
350	13 3/4"	A2-6	85		14243506		24243506		----
350	13 3/4"	A2-8	85		14243508		24243508		----



Type 6300 (Independent Jaw Chuck with D1 Type Plates)

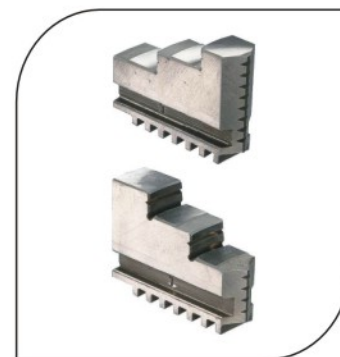
Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole		C.I. Body		S.G. Body		Steel Body
160	6 1/4"	D1-4	45		14341604		24341604		----
160	6 1/4"	D1-5	45		14341605		24341605		----
200	8"	A2-4	50		14342004		24342004		----
200	8"	D1-5	50		14342005		24342005		----
200	8"	D1-6	50		14342006		24342006		----
250	10"	D1-4	60		14342504		24342504		----
250	10"	D1-5	60		14342505		24342505		----
250	10"	D1-6	60		14342506		24342506		----
250	10"	D1-8	60		14342508		24342508		----
315	12 1/2"	D1-5	75		14343155		24343155		----
315	12 1/2"	D1-6	75		14343156		24343156		----
315	12 1/2"	D1-8	75		14343158		24343158		----
350	13 3/4"	D1-6	85		14343506		24343506		----
350	13 3/4"	D1-8	85		14343508		24343508		----



For Technical Specifications,
Please See **Page No.17**

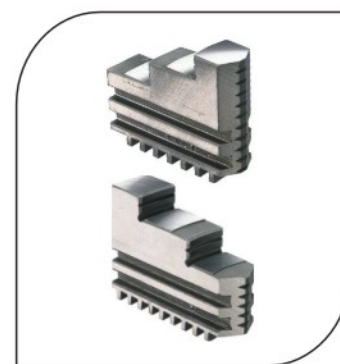
Spare Hard Jaws Set for Type 2100, 2200 & 2300 Chuck

Chuck Size (MM)	Chuck Size (Inches)		3 Jaw Outside Set		4 Jaw Outside Set		3 Jaw Inside Set		4 Jaw Inside Set
80	3 1/4"		4013080		4014080		4023080		4024080
100	4"		4013100		4014100		4023100		4024100
125	5"		4013125		4014125		4023125		4024125
160	6 1/4"		4013160		4014160		4023160		4024160
200	8"		4013200		4014200		4023200		4024200
250	10"		4013250		4014250		4023250		4024250
315	12 1/2"		4013315		4014315		4023315		4024315
350	13 3/4"		4013350		4014350		4023350		4024350
400	15 3/4"		4013400		4014400		4023400		4024400



Spare Hard Jaws Set for Type 4100, 4200 & 4300 Chuck

Chuck Size (MM)	Chuck Size (Inches)		3 Jaw Outside Set		4 Jaw Outside Set		3 Jaw Inside Set		4 Jaw Inside Set
125	5"		4033125		4034125		4043125		4044125
160	6 1/4"		4033160		4034160		4043160		4044160
200	8"		4033200		4034200		4043200		4044200
250	10"		4033250		4034250		4043250		4044250
315	12 1/2"		4033315		4034315		4043315		4044315
400	15 3/4"		4033400		4034400		4043400		4044400



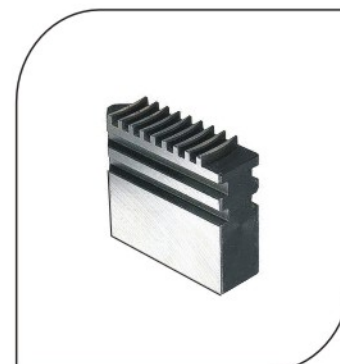
Spare Soft Jaws Set for Type 2100, 2200 & 2300 Chuck

Chuck Size (MM)	Chuck Size (Inches)		3 Jaw Set		4 Jaw Set				
80	3 1/4"		4053080		4054080				
100	4"		4053100		4054100				
125	5"		4053125		4054125				
160	6 1/4"		4053160		4054160				
200	8"		4053200		4054200				
250	10"		4053250		4054250				
315	12 1/2"		4053315		4054315				
350	13 3/4"		4053350		4054350				
400	15 3/4"		4053400		4054400				



Spare Soft Jaws Set for Type 4100, 4200 & 4300 Chuck

Chuck Size (MM)	Chuck Size (Inches)		3 Jaw Set		4 Jaw Set				
125	5"		4063125		4064125				
160	6 1/4"		4063160		4064160				
200	8"		4063200		4064200				
250	10"		4063250		4064250				
315	12 1/2"		4063315		4064315				
400	15 3/4"		4063400		4064400				



Spare Base Hard Jaws Set for Type 3100, 3200 & 3300 Chuck

Chuck Size (MM)	Chuck Size (Inches)		3 Jaw Set		4 Jaw Set				
125	5"		4073125		4074125				
160	6 1/4"		4073160		4074160				
200	8"		4073200		4074200				
250	10"		4073250		4074250				
315	12 1/2"		4073315		4074315				
350	13 3/4"		4073350		4074350				
400	15 3/4"		4073400		4074400				



Spare Base Hard Jaws Set for Type 5100, 5200 & 5300 Chuck

Chuck Size (MM)	Chuck Size (Inches)		3 Jaw Set		4 Jaw Set				
125	5"		4083125		4084125				
160	6 1/4"		4083160		4084160				
200	8"		4083200		4084200				
250	10"		4083250		4084250				
315	12 1/2"		4083315		4084315				
400	15 3/4"		4083400		4084400				



Spare Top Hard Jaws Set for Type 3100, 3200, 3300, 5100, 5200 & 5300 Chuck

Chuck Size (MM)	Chuck Size (Inches)		3 Jaw Set		4 Jaw Set				
125	5"		4093125		4094125				
160	6 1/4"		4093160		4094160				
200	8"		4093200		4094200				
250	10"		4093250		4094250				
315	12 1/2"		4093315		4094315				
350	13 3/4"		4093350		4094350				
400	15 3/4"		4093400		4094400				



Spare Top Soft Jaws Set for Type 3100, 3200, 3300, 5100, 5200 & 5300 Chuck

Chuck Size (MM)	Chuck Size (Inches)		3 Jaw Set		4 Jaw Set				
125	5"		4103125		4104125				
160	6 1/4"		4103160		4104160				
200	8"		4103200		4104200				
250	10"		4103250		4104250				
315	12 1/2"		4103315		4104315				
350	13 3/4"		4103350		4104350				
400	15 3/4"		4103400		4104400				



**Spare Scroll for
Type 2100, 2200, 2300, 3100, 3200, 3300, 4100, 4200, 4300, 5100, 5200 & 5300 Chuck**

Chuck Size (MM)	Chuck Size (Inches)		3 Jaw & 4 Jaw Chuck						
80	3 1/4"		410080						
100	4"		410100						
125	5"		410125						
160	6 1/4"		410160						
200	8"		410200						
250	10"		410250						
315	12 1/2"		410315						
350	13 3/4"		410350						
400	15 3/4"		410400						



**Spare Pinion for
Type 2100, 2200, 2300, 3100, 3200, 3300, 4100, 4200, 4300, 5100, 5200 & 5300 Chuck**

Chuck Size (MM)	Chuck Size (Inches)		3 Jaw & 4 Jaw Chuck						
80	3 1/4"		411080						
100	4"		411100						
125	5"		411125						
160	6 1/4"		411160						
200	8"		411200						
250	10"		411250						
315	12 1/2"		411315						
350	13 3/4"		411350						
400	15 3/4"		411400						



**Spare Operating Key (Handle) for
Type 2100, 2200, 2300, 3100, 3200, 3300, 4100, 4200, 4300, 5100, 5200 & 5300 Chuck**

Chuck Size (MM)	Chuck Size (Inches)		3 Jaw & 4 Jaw Chuck						
80	3 1/4"		412080						
100	4"		412100						
125	5"		412125						
160	6 1/4"		412160						
200	8"		412200						
250	10"		412250						
315	12 1/2"		412315						
350	13 3/4"		412350						
400	15 3/4"		412400						



**Spare Pinion Lock Pin for
Type 2100, 2200, 2300, 3100, 3200, 3300, 4100, 4200, 4300, 5100, 5200 & 5300 Chuck**

Chuck Size (MM)	Chuck Size (Inches)		3 Jaw & 4 Jaw Chuck						
80	3 1/4"		413080						
100	4"		413100						
125	5"		413125						
160	6 1/4"		413160						
200	8"		413200						
250	10"		413250						
315	12 1/2"		413315						
350	13 3/4"		413350						
400	15 3/4"		413400						



Spare Hard Solid Jaws Set for Type 6100, 6200 & 6300 Chuck

Chuck Size (MM)	Chuck Size (Inches)				Order Code			
85	3 1/4"				414085			
100	4"				414100			
125	5"				414125			
160	6 1/4"				414160			
200	8"				414200			
250	10"				414250			
315	12 1/2"				414315			
350	13 3/4"				414350			
400	15 3/4"				414400			
450	17 3/4"				414450			
500	19 3/4"				414500			



Spare Operating Screw for Type 6100, 6200 & 6300 Chuck

Chuck Size (MM)	Chuck Size (Inches)				Order Code			
85	3 1/4"				415085			
100	4"				415100			
125	5"				415125			
160	6 1/4"				415160			
200	8"				415200			
250	10"				415250			
315	12 1/2"				415315			
350	13 3/4"				415350			
400	15 3/4"				415400			
450	17 3/4"				415450			
500	19 3/4"				415500			



Spare Parts for Type 6100, 6200 & 6300 Chuck

Chuck Size (MM)	Chuck Size (Inches)			Thrust Bearing			Operating Key (Handle)	
85	3 1/4"			416085			417085	
100	4"			416100			417100	
125	5"			416125			417125	
160	6 1/4"			416160			417160	
200	8"			416200			417200	
250	10"			416250			417250	
315	12 1/2"			416315			417315	
350	13 3/4"			416350			417350	
400	15 3/4"			416400			417400	
450	17 3/4"			416450			417450	
500	19 3/4"			416500			417500	





High Performance Quality Products...



Self Centering Lathe Chucks

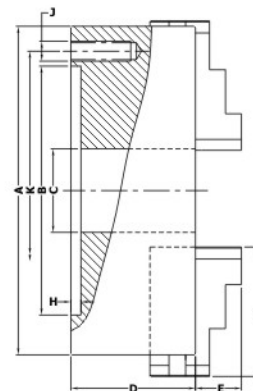
Standard Jaws

Technical Specifications

For Order Code,
Please See Page No.3

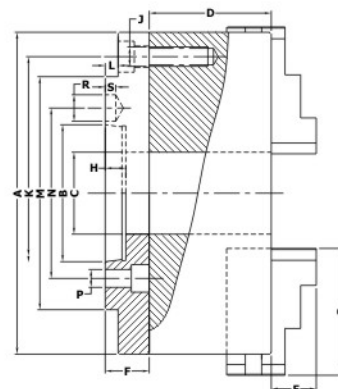
Type 2100 (Single Guide Standard Jaw Chuck) DIN 6350

Size	80mm	100mm	125mm	160mm	200mm	250mm	315mm	350mm	400mm
A	80	100	125	160	200	250	315	350	400
B H7	56	70	95	125	160	200	260	290	330
C	16	20	32	42	55	76	105	115	136
D	44	50	56	65	75	85	94	100	105
E	13	17	20	30	29	34	43	40	55
G	32	42	51	70	85	105	125	140	145
H	4	4	5	5	6	6	7	7	7
J	M 6	M 8	M 8	M 10	M 10	M 12	M 16	M 16	M 16
P.C.D K	67	83	108	140	176	224	286	318	362
Tol. on K	±0.20	±0.25	±0.25	±0.30	±0.30	±0.35	±0.40	±0.40	±0.40
Size of Sq. Key	6	9	9	11	11	14	14	14	17



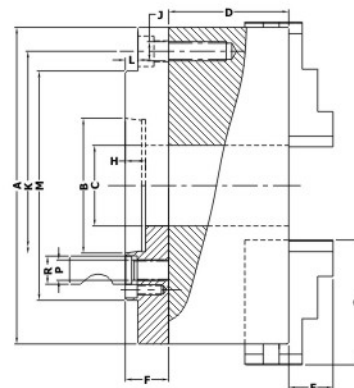
Type 2200 (Single Guide Standard Jaw Chuck with A2 Type Plate) DIN 55026

Size	125mm	160mm		200mm			250mm		315mm		400mm	
Taper Nose	A2-4	A2-4	A2-5	A2-4	A2-5	A2-6	A2-6	A2-8	A2-6	A2-8	A2-8	A2-11
A	125	160	160	200	200	200	250	250	315	315	400	400
B	63.513	63.513	82.563	63.513	82.563	106.375	106.375	139.719	106.375	139.719	139.719	196.869
C	32	42	42	55	55	55	76	76	105	105	136	136
D	56	65	65	75	75	75	85	85	94	94	105	105
E	20	30	30	29	29	29	34	34	43	43	55	55
F	21	22	23	22	23	26	28	30	32	32	34	36
G	51	70	70	85	85	85	105	105	125	125	145	145
H	13	13	15	13	15	16	16	18	16	18	18	20
J	M 8	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 16	M 16	M 16	M 16
P.C.D K	108	140	140	176	176	176	224	224	286	286	362	362
Tol. on K	±0.25	±0.30	±0.30	±0.30	±0.30	±0.30	±0.35	±0.35	±0.40	±0.40	±0.40	±0.40
L	5	5	6	5	6	8	8	8	8	8	8	10
M	108	108	133	108	133	165	165	210	165	210	210	280
N	82.6	82.6	104.8	82.6	104.8	133.4	133.4	171.4	133.4	171.4	171.4	235
P	12	12	12	12	12	14	14	18	14	18	18	20
R	14.7	14.7	16.3	14.7	16.3	19.45	19.45	24.2	19.45	24.2	24.2	29.4
S	6.5	6.5	6.5	6.5	6.5	6.5	6.5	8	6.5	8	8	10
Size of Sq. Key	9	11	11	11	11	11	14	14	14	14	17	17



Type 2300 (Single Guide Standard Jaw Chuck with D1 Type Plate) DIN 55029

Size	125mm	160mm		200mm			250mm		315mm		400mm	
Taper Nose	D1-4	D1-4	D1-5	D1-4	D1-5	D1-6	D1-6	D1-8	D1-6	D1-8	D1-8	D1-11
A	125	160	160	200	200	200	250	250	315	315	400	400
B	63.513	63.513	82.563	63.513	82.563	106.375	106.375	139.719	106.375	139.719	139.719	196.869
C	32	42	42	55	55	55	76	76	105	105	136	136
D	56	65	65	75	75	75	85	85	94	94	105	105
E	20	30	30	29	29	29	34	34	43	43	55	55
F	21	22	25	22	25	28	31	31	35	35	35	37
G	51	70	70	85	85	85	105	105	125	125	145	145
H	13	13	15	13	15	16	16	18	16	18	18	20
J	M 8	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 16	M 16	M 16	M 16
P.C.D K	108	140	140	176	176	176	224	224	286	286	362	362
Tol. on K	±0.25	±0.30	±0.30	±0.30	±0.30	±0.30	±0.35	±0.35	±0.40	±0.40	±0.40	±0.40
L	5	5	8	5	8	12	12	12	12	12	12	12
M	117	117	146	117	146	181	181	225	181	225	225	298
P	M10x1.0	M10x1.0	M12x1.0	M10x1.0	M12x1.0	M16x1.5	M16x1.5	M20x1.5	M16x1.5	M20x1.5	M20x1.5	M22x1.5
R	15.9	15.9	19	15.9	19	22.2	22.2	25.4	22.2	25.4	25.4	30.2
Size of Sq. Key	9	11	11	11	11	11	14	14	14	14	17	17





High Performance Quality Products...



Self Centering Lathe Chucks

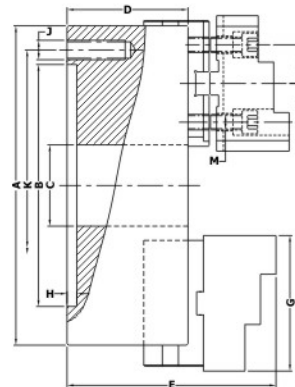
Master Top Jaws

Technical Specifications

For Order Code,
Please See Page No.4

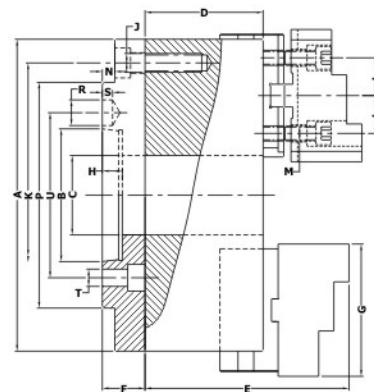
Type 3100 (Single Guide Master Top Jaw Chuck) DIN 6350

Size	125mm	160mm	200mm	250mm	315mm	350mm	400mm
A	125	160	200	250	315	350	400
B H7	95	125	160	200	260	290	330
C	32	42	55	76	105	115	136
D	56	65	75	85	94	100	105
E	97	109	121	139	152	168	180
G	60	71	85	100	115	136	136
H	5	5	6	6	7	7	7
J	M 8	M 10	M 10	M 12	M 16	M 16	M 16
P.C.D K	108	140	176	224	286	318	362
Tol. on K	±0.25	±0.30	±0.30	±0.35	±0.40	±0.40	±0.40
L	16	19.05	22.25	27	31.75	38.10	38.10
M	M8	M10	M10	M12	M12	M16	M16
Size of Sq. Key	9	11	11	14	14	14	17



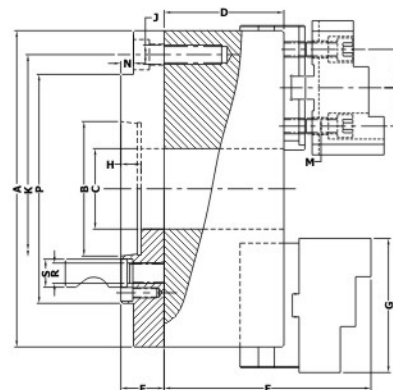
Type 3200 (Single Guide Master Top Jaw Chuck with A2 Type Plate) DIN 55026

Size	125mm	160mm		200mm			250mm		315mm		400mm	
Taper Nose	A2-4	A2-4	A2-5	A2-4	A2-5	A2-6	A2-6	A2-8	A2-6	A2-8	A2-8	A2-11
A	125	160	160	200	200	200	250	250	315	315	400	400
B	63.513	63.513	82.563	63.513	82.563	106.375	106.375	139.719	106.375	139.719	139.719	196.869
C	32	42	42	55	55	55	76	76	105	105	136	136
D	56	65	65	75	75	75	85	85	94	94	105	105
E	97	109	109	121	121	121	139	139	152	152	180	180
F	21	22	23	22	23	26	28	30	32	32	34	36
G	60	71	71	85	85	85	100	100	115	115	136	136
H	13	13	15	13	15	16	16	18	16	18	18	20
J	M 8	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 16	M 16	M 16	M 16
P.C.D K	108	140	140	176	176	176	224	224	286	286	362	362
Tol. on K	±0.25	±0.30	±0.30	±0.30	±0.30	±0.30	±0.35	±0.35	±0.40	±0.40	±0.40	±0.40
L	16	19.05	19.05	22.25	22.25	22.25	27	27	31.75	31.75	38.1	38.1
M	M 8	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 12	M 12	M 16	M 16
N	5	5	6	5	6	8	8	8	8	8	8	10
P	108	108	133	108	133	165	165	210	165	210	210	280
R	14.7	14.7	16.3	14.7	16.3	19.45	19.45	24.2	19.45	24.2	24.2	29.4
S	6.5	6.5	6.5	6.5	6.5	6.5	6.5	8	6.5	8	8	10
T	12	12	12	12	12	14	14	18	14	18	18	20
U	82.6	82.6	104.8	82.6	104.8	133.4	133.4	171.4	133.4	171.4	171.4	235
Size of Sq. Key	9	11	11	11	11	11	14	14	14	14	17	17



Type 3300 (Single Guide Master Top Jaw Chuck with D1 Type Plate) DIN 55029

Size	125mm	160mm		200mm			250mm		315mm		400mm	
Taper Nose	D1-4	D1-4	D1-5	D1-4	D1-5	D1-6	D1-6	D1-8	D1-6	D1-8	D1-8	D1-11
A	125	160	160	200	200	200	250	250	315	315	400	400
B	63.513	63.513	82.563	63.513	82.563	106.375	106.375	139.719	106.375	139.719	139.719	196.869
C	32	42	42	55	55	55	76	76	105	105	136	136
D	56	65	65	75	75	75	85	85	94	94	105	105
E	97	109	109	121	121	121	139	139	152	152	180	180
F	21	22	25	22	25	28	31	31	35	35	35	37
G	60	71	71	85	85	85	100	100	115	115	136	136
H	13	13	15	13	15	16	16	18	16	18	18	20
J	M 8	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 16	M 16	M 16	M 16
P.C.D K	108	140	140	176	176	176	224	224	286	286	362	362
Tol. on K	±0.25	±0.30	±0.30	±0.30	±0.30	±0.30	±0.35	±0.35	±0.40	±0.40	±0.40	±0.40
L	16	19.05	19.05	22.25	22.25	22.25	27	27	31.75	31.75	38.1	38.1
M	M 8	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 12	M 12	M 16	M 16
N	5	5	8	5	8	12	12	12	12	12	12	12
P	117	117	146	117	146	181	181	225	181	225	225	298
R	M10x1.0	M10x1.0	M12x1.0	M10x1.0	M12x1.0	M16x1.5	M16x1.5	M20x1.5	M16x1.5	M20x1.5	M20x1.5	M22x1.5
S	15.9	15.9	19	15.9	19	22.2	22.2	25.4	22.2	25.4	25.4	30.2
Size of Sq. Key	9	11	11	11	11	11	14	14	14	14	17	17





High Performance Quality Products...



Self Centering Lathe Chucks Double Jaw Guide

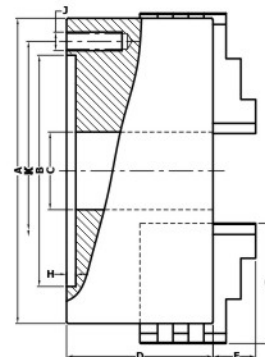
Technical Specifications

Standard Jaw

For Order Code,
Please See Page No.5

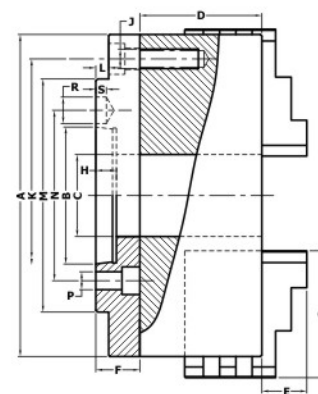
Type 4100 (Double Guide Standard Jaw Chuck) DIN 6350

Size	125mm	160mm	200mm	250mm	315mm	400mm
A	125	160	200	250	315	400
B H7	95	125	160	200	260	330
C	32	42	55	76	105	136
D	66	75	83	96	110	120
E	20	30	29	34	43	55
G	51	70	85	105	125	145
H	5	5	6	6	7	7
J	M 8	M 10	M 10	M 12	M 16	M 16
P.C.D K	108	140	176	224	286	362
Tol. on K	±0.25	±0.30	±0.30	±0.35	±0.40	±0.40
Size of Sq. Key	9	11	11	14	14	17



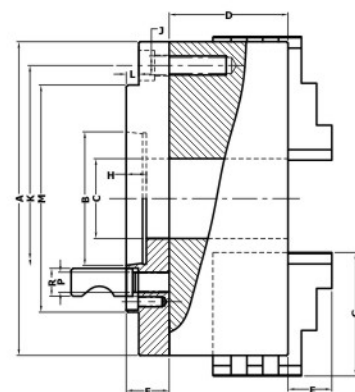
Type 4200 (Double Guide Standard Jaw Chuck with A2 Type Plate) DIN 55026

Size	125mm	160mm		200mm			250mm		315mm		400mm	
Taper Nose	A2-4	A2-4	A2-5	A2-4	A2-5	A2-6	A2-6	A2-8	A2-6	A2-8	A2-8	A2-11
A	125	160	160	200	200	200	250	250	315	315	400	400
B	63.513	63.513	82.563	63.513	82.563	106.375	106.375	139.719	106.375	139.719	139.719	196.869
C	32	42	42	55	55	55	76	76	105	105	136	136
D	66	75	75	83	83	83	96	96	110	110	120	120
E	20	30	30	29	29	29	34	34	43	43	55	55
F	21	22	23	22	23	26	28	30	32	32	34	36
G	51	70	70	85	85	85	105	105	125	125	145	145
H	13	13	15	13	15	16	16	18	16	18	18	20
J	M 8	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 16	M 16	M 16	M 16
P.C.D K	108	140	140	176	176	176	224	224	286	286	362	362
Tol. on K	±0.25	±0.30	±0.30	±0.30	±0.30	±0.30	±0.35	±0.35	±0.40	±0.40	±0.40	±0.40
L	5	5	6	5	6	8	8	8	8	8	8	10
M	108	108	133	108	133	165	165	210	165	210	210	280
N	82.6	82.6	104.8	82.6	104.8	133.4	133.4	171.4	133.4	171.4	171.4	235
P	12	12	12	12	12	14	14	18	14	18	18	20
R	14.7	14.7	16.3	14.7	16.3	19.45	19.45	24.2	19.45	24.2	24.2	29.4
S	6.5	6.5	6.5	6.5	6.5	6.5	6.5	8	6.5	8	8	10
Size of Sq. Key	9	11	11	11	11	11	14	14	14	14	17	17



Type 4300 (Double Guide Standard Jaw Chuck with D1 Type Plate) DIN 55029

Size	125mm	160mm		200mm			250mm		315mm		400mm	
Taper Nose	D1-4	D1-4	D1-5	D1-4	D1-5	D1-6	D1-6	D1-8	D1-6	D1-8	D1-8	D1-11
A	125	160	160	200	200	200	250	250	315	315	400	400
B	63.513	63.513	82.563	63.513	82.563	106.375	106.375	139.719	106.375	139.719	139.719	196.869
C	32	42	42	55	55	55	76	76	105	105	136	136
D	66	75	75	83	83	83	96	96	110	110	120	120
E	20	30	30	29	29	29	34	34	43	43	55	55
F	21	22	25	22	25	28	31	31	35	35	35	37
G	51	70	70	85	85	85	105	105	125	125	145	145
H	13	13	15	13	15	16	16	18	16	18	18	20
J	M 8	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 16	M 16	M 16	M 16
P.C.D K	108	140	140	176	176	176	224	224	286	286	362	362
Tol. on K	±0.25	±0.30	±0.30	±0.30	±0.30	±0.30	±0.35	±0.35	±0.40	±0.40	±0.40	±0.40
L	5	5	8	5	8	12	12	12	12	12	12	12
M	117	117	146	117	146	181	181	225	181	225	225	298
P	M10x1.0	M10x1.0	M12x1.0	M10x1.0	M12x1.0	M16x1.5	M16x1.5	M20x1.5	M16x1.5	M20x1.5	M20x1.5	M22x1.5
R	15.9	15.9	19	15.9	19	22.2	22.2	25.4	22.2	25.4	25.4	30.2
Size of Sq. Key	9	11	11	11	11	11	14	14	14	14	17	17





High Performance Quality Products...



Self Centering Lathe Chucks Double Jaw Guide

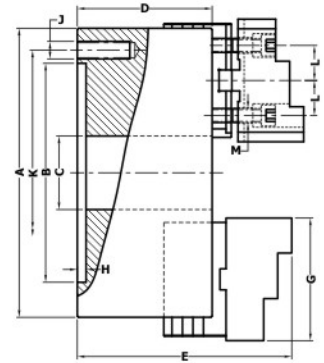
Technical Specifications

Master Top Jaws

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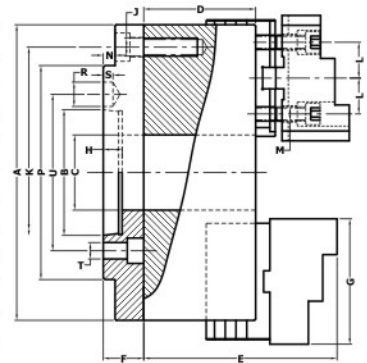
Type 5100 (Double Guide Master Top Jaw Chuck) DIN 6350

Size	125mm	160mm	200mm	250mm	315mm	400mm
A	125	160	200	250	315	400
B H7	95	125	160	200	260	330
C	32	42	55	76	105	136
D	66	75	83	96	110	120
E	107	119	129	150	169	190
G	60	71	85	100	115	136
H	5	5	6	6	7	7
J	M 8	M 10	M 10	M 12	M 16	M 16
P.C.D K	108	140	176	224	286	362
Tol. on K	±0.25	±0.30	±0.30	±0.35	±0.40	±0.40
L	16	19.05	22.25	27	31.75	38.10
M	M8	M10	M10	M12	M12	M16
Size of Sq. Key	9	11	11	14	14	17



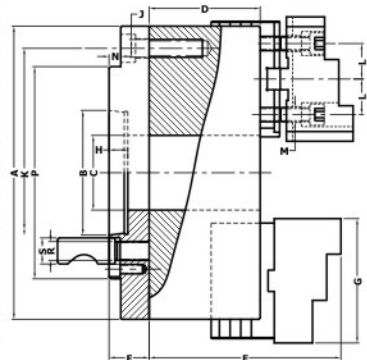
Type 5200 (Double Guide Master Top Jaw Chuck with A2 Type Plate) DIN 55026

Size	125mm	160mm		200mm			250mm		315mm		400mm	
Taper Nose	A2-4	A2-4	A2-5	A2-4	A2-5	A2-6	A2-6	A2-8	A2-6	A2-8	A2-8	A2-11
A	125	160	160	200	200	200	250	250	315	315	400	400
B	63.513	63.513	82.563	63.513	82.563	106.375	106.375	139.719	106.375	139.719	139.719	196.869
C	32	42	42	55	55	55	76	76	105	105	136	136
D	66	75	75	83	83	83	96	96	110	110	120	120
E	107	119	119	129	129	129	150	150	169	169	190	190
F	21	22	23	22	23	26	28	30	32	32	34	36
G	60	71	71	85	85	85	100	100	115	115	136	136
H	13	13	15	13	15	16	16	18	16	18	18	20
J	M 8	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 16	M 16	M 16	M 16
P.C.D K	108	140	140	176	176	176	224	224	286	286	362	362
Tol. on K	±0.25	±0.30	±0.30	±0.30	±0.30	±0.30	±0.35	±0.35	±0.40	±0.40	±0.40	±0.40
L	16	19.05	19.05	22.25	22.25	22.25	27	27	31.75	31.75	38.1	38.1
M	M 8	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 12	M 12	M 16	M 16
N	5	5	6	5	6	8	8	8	8	8	8	10
P	108	108	133	108	133	165	165	210	165	210	210	280
R	14.7	14.7	16.3	14.7	16.3	19.45	19.45	24.2	19.45	24.2	24.2	29.4
S	6.5	6.5	6.5	6.5	6.5	6.5	6.5	8	6.5	8	8	10
T	12	12	12	12	12	14	14	18	14	18	18	20
U	82.6	82.6	104.8	82.6	104.8	133.4	133.4	171.4	133.4	171.4	171.4	235
Size of Sq. Key	9	11	11	11	11	11	14	14	14	14	17	17



Type 5300 (Double Guide Master Top Jaw Chuck with D1 Type Plate) DIN 55029

Size	125mm	160mm		200mm			250mm		315mm		400mm	
Taper Nose	D1-4	D1-4	D1-5	D1-4	D1-5	D1-6	D1-6	D1-8	D1-6	D1-8	D1-8	D1-11
A	125	160	160	200	200	200	250	250	315	315	400	400
B	63.513	63.513	82.563	63.513	82.563	106.375	106.375	139.719	106.375	139.719	139.719	196.869
C	32	42	42	55	55	55	76	76	105	105	136	136
D	66	75	75	83	83	83	96	96	110	110	120	120
E	107	119	119	129	129	129	150	150	169	169	190	190
F	21	22	25	22	25	28	31	31	35	35	35	37
G	60	71	71	85	85	85	100	100	115	115	136	136
H	13	13	15	13	15	16	16	18	16	18	18	20
J	M 8	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 16	M 16	M 16	M 16
P.C.D K	108	140	140	176	176	176	224	224	286	286	362	362
Tol. on K	±0.25	±0.30	±0.30	±0.30	±0.30	±0.30	±0.35	±0.35	±0.40	±0.40	±0.40	±0.40
L	16	19.05	19.05	22.25	22.25	22.25	27	27	31.75	31.75	38.1	38.1
M	M 8	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 12	M 12	M 16	M 16
N	5	5	8	5	8	12	12	12	12	12	12	12
P	117	117	146	117	146	181	181	225	181	225	225	298
R	M10x1.0	M10x1.0	M12x1.0	M10x1.0	M12x1.0	M16x1.5	M16x1.5	M20x1.5	M16x1.5	M20x1.5	M20x1.5	M22x1.5
S	15.9	15.9	19	15.9	19	22.2	22.2	25.4	22.2	25.4	25.4	30.2
Size of Sq. Key	9	11	11	11	11	11	14	14	14	14	17	17





High Performance Quality Products...

4 Jaw Independent Chuck

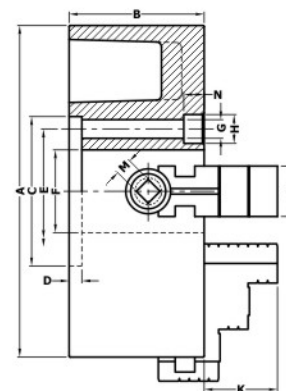
Technical Specifications



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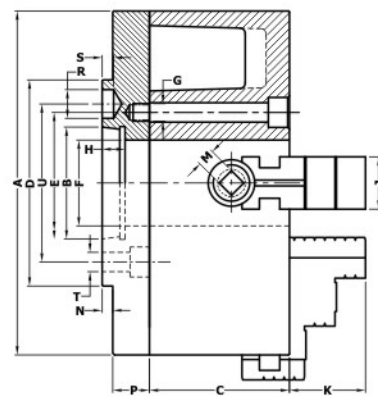
Type 6100 (Independent Jaw Chuck)

Size	85mm	100mm	125mm	160mm	200mm	250mm	315mm	350mm	400mm	450mm	500mm
A	85	100	127	160	200	250	315	355	400	450	500
B	38	50	50	58	74	80	88	90	95	95	110
C	56	70	95	125	95	125	160	160	200	200	260
D	3	4	4	6	6	8	10	10	12	12	18
E	67	83	108	140	82.6	104.8	133.4	133.4	171.4	171.4	235
F	20	25	32	45	50	60	75	85	100	100	110
G	6.5	6.5	9	11	11	11	13	13	17	17	21
H	10.5	10.5	13.5	17	17	17	19	19	25.4	25.4	32
J	11	18	20	24	32	32	36	36	40	40	45
K	22	23	25	32	39	42	48	52	55	55	60
M	6	6	7	9	10	11	12	12	14	14	17
N	7	7	10	12	12	12	14	14	18	18	22



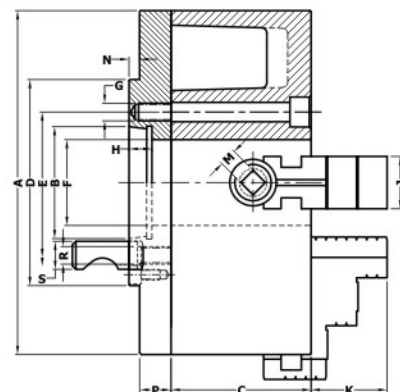
Type 6200 (Independent Jaw Chuck with A2 Type Plates) DIN 55026

Size	160mm		200mm			250mm				315mm			350mm	
Taper Nose	A2-4	A2-5	A2-4	A2-5	A2-6	A2-4	A2-5	A2-6	A2-8	A2-5	A2-6	A2-8	A2-6	A2-8
A	160	160	200	200	200	250	250	250	250	315	315	315	355	355
B	63.513	82.563	63.513	82.563	106.375	63.513	82.563	106.375	139.719	82.563	106.375	139.719	106.375	139.719
C	58	58	74	74	74	80	80	80	80	88	88	88	90	90
D	108	133	108	133	165	108	133	165	210	133	165	210	165	210
E	140	140	82.6	82.6	82.6	104.8	104.8	104.8	104.8	133.4	133.4	133.4	133.4	133.4
F	45	45	50	50	50	60	60	60	60	75	75	75	85	85
G	M 10	M 10	M 10	M 10	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 12	M 12	M 12
H	13	15	13	15	16	13	15	16	18	15	16	18	16	18
J	24	24	32	32	32	32	32	32	32	36	36	36	36	36
K	32	32	39	39	39	42	42	42	42	48	48	48	52	52
M	9	9	10	10	10	11	11	11	11	12	12	12	12	12
N	5	6	5	6	8	5	6	8	8	6	8	8	8	8
P	20	20	22	23	26	22	23	26	30	23	26	27	26	27
R	14.7	16.3	14.7	16.3	19.45	14.7	16.3	19.45	24.2	16.3	19.45	24.2	19.45	24.2
S	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	8	6.5	6.5	8	6.5	8
T	12	12	12	12	14	12	12	14	18	12	14	18	14	18
U	82.6	104.8	82.6	104.8	133.4	82.6	104.8	133.4	171.4	104.8	133.4	171.4	133.4	171.4



Type 6300 (Independent Jaw Chuck with D1 Type Plates) DIN 55029

Size	160mm		200mm			250mm				315mm			350mm	
Taper Nose	D1-4	D1-5	D1-4	D1-5	D1-6	D1-4	D1-5	D1-6	D1-8	D1-5	D1-6	D1-8	D1-6	D1-8
A	160	160	200	200	200	250	250	250	250	315	315	315	355	355
B	63.513	82.563	63.513	82.563	106.375	63.513	82.563	106.375	139.719	82.563	106.375	139.719	106.375	139.719
C	58	58	74	74	74	80	80	80	80	88	88	88	90	90
D	117	146	117	146	181	117	146	181	225	146	181	225	181	225
E	140	140	82.6	82.6	82.6	104.8	104.8	104.8	104.8	133.4	133.4	133.4	133.4	133.4
F	45	45	50	50	50	60	60	60	60	75	75	75	85	85
G	M 10	M 10	M 10	M 10	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 12	M 12	M 12
H	13	15	13	15	16	13	15	16	18	15	16	18	16	18
J	24	24	32	32	32	32	32	32	32	36	36	36	36	36
K	32	32	39	39	39	42	42	42	42	48	48	48	52	52
M	9	9	10	10	10	11	11	11	11	12	12	12	12	12
N	5	6	5	6	12	5	6	12	12	6	12	12	12	12
P	20	20	22	23	23	22	23	23	25	23	25	25	25	25
R	M10x1.0	M12x1.0	M10x1.0	M12x1.0	M16x1.5	M10x1.0	M12x1.0	M16x1.5	M20x1.5	M12x1.0	M16x1.5	M20x1.5	M16x1.5	M20x1.5
S	15.9	19	15.9	19	22.2	15.9	19	22.2	25.4	19	22.2	25.4	22.2	25.4



Spare Parts of Standard Jaw Chuck ▶

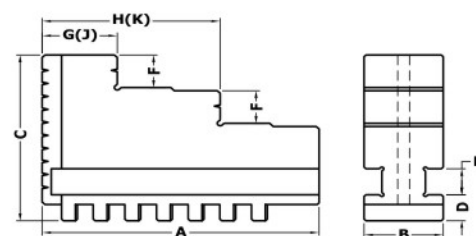
For Order Code,
Please See **Page No.8**

Spare Hard Jaws Set for Type 2100, 2200 & 2300 Chuck

Size	80mm	100mm	125mm	160mm	200mm	250mm	315mm	350mm	400mm
A	32	42	51	70	85	105	125	140	145
B	11	15	20	20	25	28	32	35	36
C	28	31	40	51	54	63	73	80	92
D	6	6	8	8	9	11	12.7	15.3	15
E	6	6	8	8	10	12	12	15	14
F	6	7	8	10	12	14	18	16	22
G	10	11	13	19	23	28	35	45	36
H	21	27	33.5	45	57	69	83	93	99
J	10	12	13	22	23	28	35	45	36
K	21	27.5	33.5	47.5	57	69	83	93	99

Dimension G and H apply for outside Jaws .

Dimension J and K apply for inside Jaws .

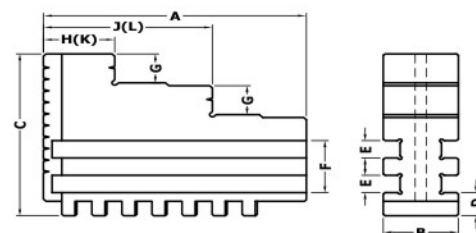


Spare Hard Jaws Set for Type 4100, 4200 & 4300 Chuck

Size	125mm	160mm	200mm	250mm	315mm	400mm
A	51	70	85	105	125	145
B	20	20	25	28	32	36
C	50	56	62	74	90	107
D	8	8	9	11	12.7	15
E	6	6	6	8	10	10
F	18	18	18	23	29	29
G	8	10	12	14	18	22
H	13	19	23	28	35	36
J	33.5	45	57	69	83	99
K	13	22	23	28	35	36
L	33.5	47.5	57	69	83	99

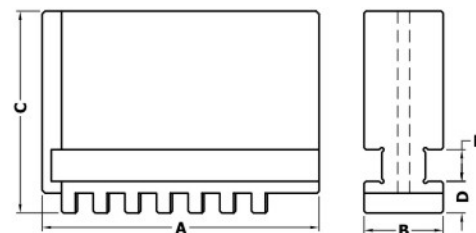
Dimension H and J apply for outside Jaws .

Dimension K and L apply for inside Jaws .



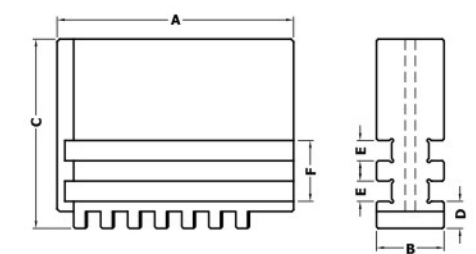
Spare Soft Jaws Set for Type 2100, 2200 & 2300 Chuck

Size	80mm	100mm	125mm	160mm	200mm	250mm	315mm	350mm	400mm
A	32	42	51	70	85	105	125	140	145
B	11	15	20	20	25	28	32	35	36
C	28	31	40	51	54	63	73	80	92
D	6	6	8	8	9	11	12.7	15.3	15
E	6	6	8	8	10	12	12	15	14



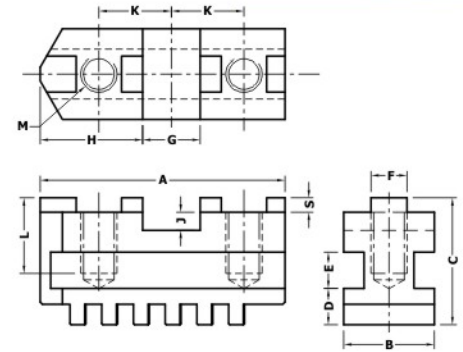
Spare Soft Jaws Set for Type 4100, 4200 & 4300 Chuck

Size	125mm	160mm	200mm	250mm	315mm	400mm
A	51	70	85	105	125	145
B	20	20	25	28	32	36
C	50	56	62	74	90	107
D	8	8	9	11	12.7	15
E	6	6	6	8	10	10
F	18	18	18	23	29	29



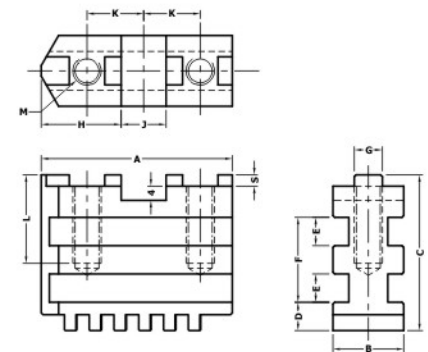
Spare Base Hard Jaws Set for Type 3100, 3200 & 3300 Chuck

Size	125mm	160mm	200mm	250mm	315mm	350mm	400mm
A	54	65	79	92	110	130	130
B	20	20	25	28	32	35	36
C	29	30	34	38	41	47	49
D	8	8	9	11	12.7	15.3	15
E	8	8	10	12	12	15	14
F	7.94	7.94	7.94	12.7	12.7	12.7	12.7
G	12.69	12.69	12.69	19.04	19.04	19.04	19.04
H	22.6	28.6	34.9	39.7	47.6	57.1	57.1
J	4	4	4	4	4	4	4
K	16	19.05	22.25	27	31.75	38.10	38.10
L	13.5	14	14	16	16	25	25
M	M8	M10	M10	M12	M12	M12	M16
S	3.2	3.2	3.2	3.2	3.2	3.2	3.2



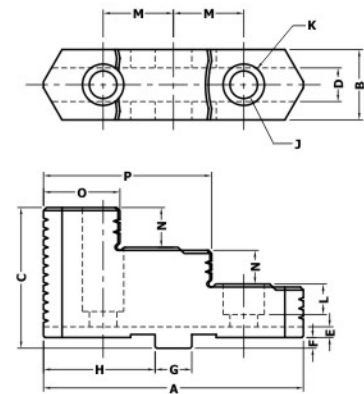
Spare Base Hard Jaws Set for Type 5100, 5200 & 5300 Chuck

Size	125mm	160mm	200mm	250mm	315mm	400mm
A	54	65	79	92	110	130
B	20	20	25	28	32	36
C	39	40	42	49	58	64
D	8	8	9	11	12.7	15
E	6	6	6	8	10	10
F	18	18	18	23	29	29
G	7.94	7.94	7.94	12.7	12.7	12.7
H	22.6	28.6	34.9	39.7	47.6	57.1
J	12.69	12.69	12.69	19.04	19.04	19.04
K	16	19.05	22.25	27	31.75	38.10
L	13.5	14	14	16	16	25
M	M8	M10	M10	M12	M12	M16
S	3.2	3.2	3.2	3.2	3.2	3.2



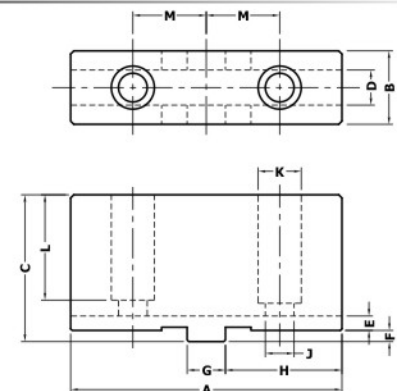
Spare Top Hard Jaws Set for Type 3100, 3200, 3300, 5100, 5200 & 5300 Chuck

Size	125mm	160mm	200mm	250mm	315mm	350mm	400mm
A	60	70	85	100	115	136	136
B	22	25	27	30	34	38	42
C	38.5	41.5	43.5	51.5	55	64.5	64.5
D	7.95	7.95	7.95	12.71	12.71	12.71	12.71
E	4	4	4	4	4	4	4
F	3.2	3.2	3.2	3.2	3.2	3.2	3.2
G	12.69	12.69	12.69	19.04	19.04	19.04	19.04
H	24.6	30.6	37.4	42.2	50.1	60.1	60.1
J	9	11	11	13.5	13.5	17.5	17.5
K	13.5	17	17	19.5	19.5	25.4	25.4
L	10	12	12	14.5	14.5	18.5	18.5
M	16	19.05	22.25	27	31.75	38.1	38.1
N	8	8.5	9.5	12	13	13.5	13.5
O	16.5	20	23.5	27	31	34	34
P	37	43.5	53	61.5	71	83	83



Spare Top Soft Jaws Set for Type 3100, 3200, 3300, 5100, 5200 & 5300 Chuck

Size	125mm	160mm	200mm	250mm	315mm	350mm	400mm
A	64	78	90	106	120	140	140
B	22	25	27	30	34	38	42
C	38.5	41.5	43.5	51.5	55	64.5	64.5
D	7.95	7.95	7.95	12.71	12.71	12.71	12.71
E	4	4	4	4	4	4	4
F	3.2	3.2	3.2	3.2	3.2	3.2	3.2
G	12.69	12.69	12.69	19.04	19.04	19.04	19.04
H	25	34	40	45	53	62.1	62.1
J	9	11	11	13.5	13.5	17.5	17.5
K	13.5	17	17	19.5	19.5	25.4	25.4
L	26	29	31	38	40	47	47
M	16	19.05	22.25	27	31.75	38.1	38.1



Section 2



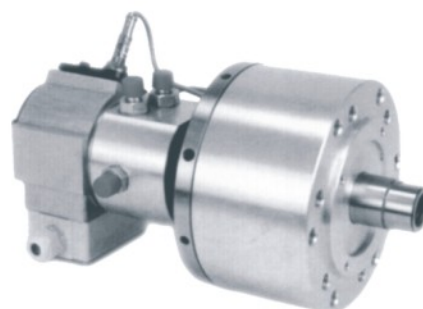
Power Chucks

SHARP Power Chucks are designed in such a way to increase production with in given tolerances of job with high gripping power.

BODY : It is made of forged steel and have high tensile strength at high speeds. It is case hardened hardness 40-45 HRC.

BASE JAWS / TOP JAWS : These are made of Nickle Chrome alloy steel. These are case hardened, hardness 56-60 HRC.

WEDGE / PISTON : It is made of Nickel Chrome alloy steel, case hardened and precision ground hardness 56-60 HRC. It is designed to bear high forces.



TECHNICAL FEATURES :

Steel Body with all wearing surfaces are hardened and ground.

Complete system of internal lubrication with grease.

Repetitive Gripping Accuracy is with in 0.050mm in Hard Jaws and 0.020mm in Soft Jaws.

Safety system is provided in unlikely cases of accidental breakage.

Serrations for mounting jaws are precision ground and are available in 1/16" x 90° and 1.5mm x 60° pitch.

Maximum recommended speeds are based on the speed at which 20% of the static gripping force is lost due to centrifugal force.

Power Chucks

Guide to Cutting and Gripping Force

The advancement of cutting tool technology has enabled us to produce the machines with high speed machining. To match this age of high speeds, the chucks for the machines required high gripping force at high speeds. Therefore it is very important to know the following:

1. The cutting forces on the job at a particular speeds and feeds.
2. Required draw bar pull to provide the initial gripping force on the jaws.
3. The static gripping force on chuck and at given speed.

In any machining operation number of factors affect the gripping force. Some of them are given below.

1. Surface condition of component.
2. Jaws clamping surface plain or serrated etc.
3. Weight of the Jaws.
4. Draw bar pull.
5. Lubrication type.
6. Chuck condition.
7. Length of gripping surface.
8. Speed of chuck.

Every point given above has its own role in gripping force. It is advisable for the user to keep in mind the following formula for calculating the centrifugal force:

$$CF = \frac{0.102 \times W \times r (\pi \times S)^2}{30}$$

Where

CF = Centrifugal Force.

W = Weight of Base Jaws and Top Jaws.

S = Operating Speed.

r = Radius of center of gravity.

After calculating the centrifugal force, the Gripping Force at a given speed will be calculated with the following formula:

$$GF = GS \pm CF$$

where

GF = Gripping force at given speed.

GS = Gripping force when chuck is stationary.

CF = Centrifugal Force.

+ (plus) for Internal Gripping

- (minus) for External Gripping

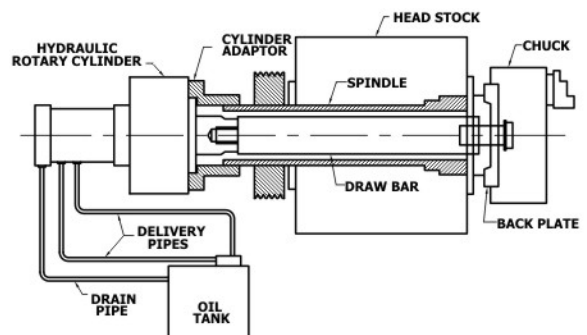
It is advisable that the Gripping force at given speeds should be at least 1.5/2.0 times of the cutting force, depending upon the constructional rigidity of the job.

Elements of Power Chucking System

The power chucking system consists of the following:

1. Power Chuck
2. Power source an actuating source (Hydraulic / Pneumatic Cylinder)
3. Connecting Rod (Draw Bar / Pipe)
4. Power Pack

The chuck is mounted at the front end and hydraulic / pneumatic cylinder at the rear end of the headstock. The chuck and cylinder is connected to each other by a connecting rod. Two pipes from the power pack are connected for each chamber of cylinder. One drain pipe is also connected to cylinder and reservoir to return the leakage oil.



Power Chucks

Standard Accessories:

Reversible Top hard Jaws- 1 Set
Soft Jaws- 1 Set
Allen Key- 1 Pc
Key for Stroke Adjustment - 1 Pc
(only in open Center)

Type 7100 (Power Chuck Close Centre)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	2 Jaw	3 Jaw	4 Jaw
125	5"	----	----	1512125	1513125	----
165	6 1/2"	----	----	1512165	1513165	1514165
200	8"	----	----	1512200	1513200	1514200
250	10"	----	----	1512250	1513250	1514250
315	12 1/2"	----	----	1512315	1513315	1514315



For Technical Specifications,
Please See **Page No.25**

Type 7200 (Power Chuck Close Centre Direct Mount)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	2 Jaw	3 Jaw	4 Jaw
125	5"	A2-4	----	15221254	15231254	----
165	6 1/2"	A2-5	----	15221655	15231655	15241655
200	8"	A2-5	----	15222005	15232005	15242005
200	8"	A2-6	----	15222006	15232006	15242006
250	10"	A2-6	----	15222506	15232506	15242506
250	10"	A2-8	----	15222508	15232508	15242508
315	12 1/2"	A2-8	----	15223158	15233158	15243158
315	12 1/2"	A2-11	----	152231511	152331511	152431511



For Technical Specifications,
Please See **Page No.26**

Type 7300 (Power Chuck Open Centre)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	2 Jaw	3 Jaw	4 Jaw
135	5"	----	33	1532135	1533135	----
165	6 1/2"	----	45	1532165	1533165	1534165
200	8"	----	52	1532200	1533200	1534200
250	10"	----	68	1532250	1533250	1534250
315	12 1/2"	----	90	1532315	1533315	1534315



For Technical Specifications,
Please See **Page No.27**

Type 7400 (Power Chuck Open Centre Direct Mount)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole	2 Jaw	3 Jaw	4 Jaw
135	5"	A2-4	33	15421354	15431354	----
165	6 1/2"	A2-5	45	15421655	15431655	15441655
200	8"	A2-5	52	15422005	15432005	15442005
200	8"	A2-6	52	15422006	15432006	15442006
250	10"	A2-6	68	15422506	15432506	15442506
250	10"	A2-8	68	15422508	15432508	15442508
315	12 1/2"	A2-8	90	15423158	15433158	15443158
315	12 1/2"	A2-11	90	154231511	154331511	154431511



For Technical Specifications,
Please See **Page No.28**

Power Chucks


Standard Accessories:

Reversible Top hard Jaws- 1 Set
Soft Jaws- 1 Set
Allen Key- 1 Pc
Key for Stroke Adjustment - 1 Pc
(only in open Center)


Type 7500 (Power Chuck Eccentric Compensation / Jaw Compensation)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole		2 Jaw		3 Jaw	
165	6 1/2"	----	----		1552165		1553165	
200	8"	----	----		1552200		1553200	
250	10"	----	----		1552250		1553250	
315	12 1/2"	----	----		1552315		1553315	



For Technical Specifications,
Please See **Page No.29**

Type 7600 (Power Chuck Eccentric Compensation / Jaw Compensation Direct Mount)

Chuck Size (MM)	Chuck Size (Inches)	Short Taper	Through Hole		2 Jaw		3 Jaw	
165	6 1/2"	A2-5	----		15621655		15631655	
200	8"	A2-5	----		15622005		15632005	
200	8"	A2-6	----		15622006		15632006	
250	10"	A2-6	----		15622506		15632506	
250	10"	A2-8	----		15622508		15632508	
315	12 1/2"	A2-8	----		15623158		15633158	
315	12 1/2"	A2-11	----		156231511		156331511	



For Technical Specifications,
Please See **Page No.30**

Type 7900 (High Speed Rotary Cylinder Close Centre)

Size (MM)	Size (Inches)	Matching Chuck		Order Code			
125	5"	160 & 200		159125			
150	6 1/2"	250 & 315		159150			



For Technical Specifications,
Please See **Page No.31**

Type 8000 (Slow Speed Rotary Cylinder Close Centre)

Size (MM)	Size (Inches)	Matching Chuck		Order Code			
90	3 1/2"	125 & 135		160090			
120	4 3/4"	160 & 200		160120			
160	6 1/2"	200, 250 & 315		160160			
200	8"	315		160200			



For Technical Specifications,
Please See **Page No.32**

Spare Base Jaws Set for Type 7100 & 7200 Chuck

Chuck Size (MM)	Chuck Size (Inches)		2 Jaw Set		3 Jaw Set		4 Jaw Set	
125	5"		4212125		4213125		----	
165	6 1/2"		4212165		4213165		4214165	
200	8"		4212200		4213200		4214200	
250	10"		4212250		4213250		4214250	
315	12 1/2"		4212315		4213315		4214315	



Spare Wedge (Piston) for Type 7100 & 7200 Chuck

Chuck Size (MM)	Chuck Size (Inches)		2 Jaw Set		3 Jaw Set		4 Jaw Set	
125	5"		4222125		4223125		----	
165	6 1/2"		4222165		4223165		4224165	
200	8"		4222200		4223200		4224200	
250	10"		4222250		4223250		4224250	
315	12 1/2"		4222315		4223315		4224315	



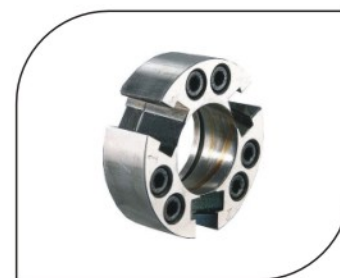
Spare Base Jaws Set for Type 7300 & 7400 Chuck

Chuck Size (MM)	Chuck Size (Inches)		2 Jaw Set		3 Jaw Set		4 Jaw Set	
135	5 1/2"		4232135		4233135		----	
165	6 1/2"		4232165		4233165		4234165	
200	8"		4232200		4233200		4234200	
250	10"		4232250		4233250		4234250	
315	12 1/2"		4232315		4233315		4234315	



Spare Wedge (Piston) for Type 7300 & 7400 Chuck

Chuck Size (MM)	Chuck Size (Inches)		2 Jaw Set		3 Jaw Set		4 Jaw Set	
135	5 1/2"		4242135		4243135		----	
165	6 1/2"		4242165		4243165		4244165	
200	8"		4242200		4243200		4244200	
250	10"		4242250		4243250		4244250	
315	12 1/2"		4242315		4243315		4244315	



Spare Base Jaws Set for Type 7500 & 7600 Chuck

Chuck Size (MM)	Chuck Size (Inches)		2 Jaw Set			3 Jaw Set		
165	6 1/2"		4252165			4253165		
200	8"		4252200			4253200		
250	10"		4252250			4253250		
315	12 1/2"		4252315			4253315		



Spare Wedge (Piston) for Type 7500 & 7600 Chuck

Chuck Size (MM)	Chuck Size (Inches)		2 Jaw Set			3 Jaw Set		
165	6 1/2"		4262165			4263165		
200	8"		4262200			4263200		
250	10"		4262250			4263250		
315	12 1/2"		4262315			4263315		



Spare Top Hard Jaws Set for Type 7100, 7200, 7300, 7400, 7500 & 7600 Chuck

Chuck Size (MM)	Chuck Size (Inches)		2 Jaw Set		3 Jaw Set		4 Jaw Set	
125 / 135	5" / 5 1/2"		4272125		4273125		----	
165	6 1/2"		4272165		4273165		4274165	
200	8"		4272200		4273200		4274200	
250	10"		4272250		4273250		4274250	
315	12 1/2"		4272315		4273315		4274315	



For Technical Specifications,
Please See **Page No.33**

Spare Top Soft Jaws Set for Type 7100, 7200, 7300, 7400, 7500 & 7600 Chuck

Chuck Size (MM)	Chuck Size (Inches)		2 Jaw Set		3 Jaw Set		4 Jaw Set	
125 / 135	5" / 5 1/2"		4282125		4283125		----	
165	6 1/2"		4282165		4283165		4284165	
200	8"		4282200		4283200		4284200	
250	10"		4282250		4283250		4284250	
315	12 1/2"		4282315		4283315		4284315	



For Technical Specifications,
Please See **Page No.33**

Spare T-Nut for Type 7100, 7200, 7300, 7400, 7500 & 7600 Chuck

Chuck Size (MM)	Chuck Size (Inches)				Order Code			
125 / 135	5" / 5 1/2"				429125			
165	6 1/2"				429165			
200	8"				429200			
250	10"				429250			
315	12 1/2"				429315			



Spare Compensating Wedge for Type 7500 & 7600 Chuck

Chuck Size (MM)	Chuck Size (Inches)			2 Jaw Set			3 Jaw Set	
165	6 1/2"			4302165			4303165	
200	8"			4302200			4303200	
250	10"			4302250			4303250	
315	12 1/2"			4302315			4303315	



Spare Spring Loaded Centre for Type 7500 & 7600 Chuck

Chuck Size (MM)	Chuck Size (Inches)			2 Jaw Set			3 Jaw Set	
165	6 1/2"			4312165			4313165	
200	8"			4312200			4313200	
250	10"			4312250			4313250	
315	12 1/2"			4312315			4313315	



Spare Spindle Nut for Type 7300 & 7400 Chuck

Chuck Size (MM)	Chuck Size (Inches)				Order Code			
125 / 135	5" / 5 1/2"				436135			
165	6 1/2"				436165			
200	8"				436200			
250	10"				436250			
315	12 1/2"				436315			



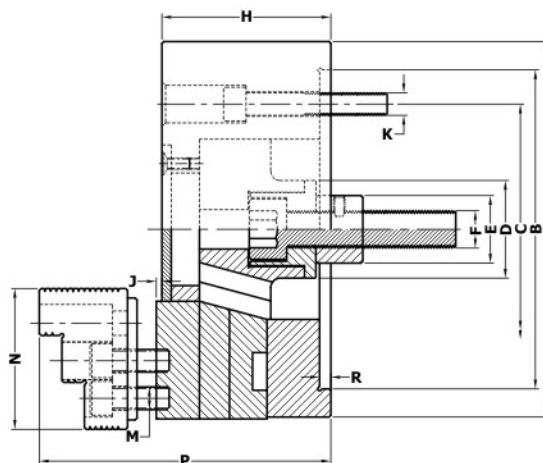
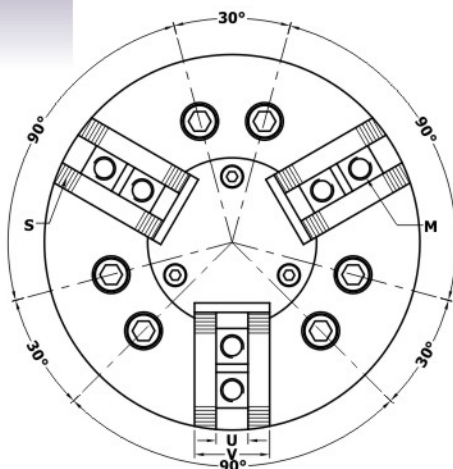


Type 7100 Power Chuck Close Center



Technical Specifications

For Order Code,
Please See **Page No.21**



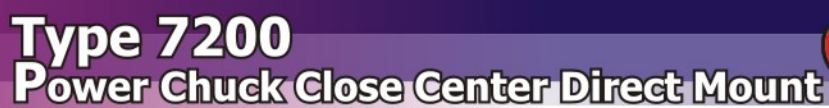
Dimensional Data

Chuck Size	125mm	165mm	200mm	250mm	315mm
A	125	170	210	254	315
B H6	105	140	170	220	220
C	82.6	104.8	133.4	171.4	171.4
D	M24 x 1.5	40	52	60	60
E	----	32	40	50	55
F	----	M16	M20	M20	M24
H	52	78.5	82	94	107
J	7	4	4	5	5
K	3 x M10	6 x M10	6 x M12	6 x M16	6 x M16
M	M8	M10	M12	M12	M14
N	57	72	87	100	107
P	103	124	146	152	160
R	5	5	5	5	5
S	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
U	10	12	14	16	18
V	25	32	37	40	50

Note: Serrations 1.5 x 60° are on request.

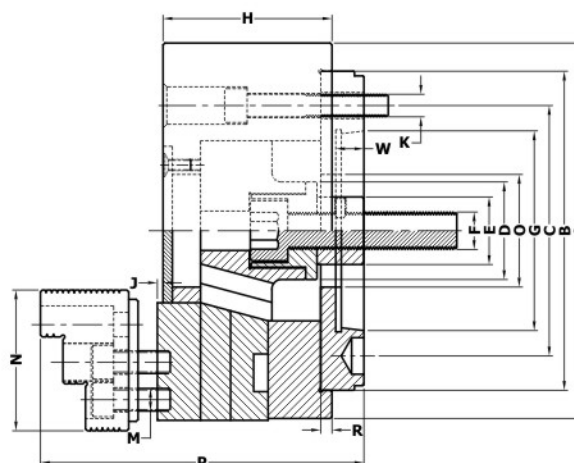
Technical Data

Max. RPM	3000	3800	3100	2800	2300
Jaw Stroke Dia	8	9	9.2	11.6	11.6
Plunger Stroke (Max.)	19	20	20	25	25
Draw Bar Pull (Max. Kgf.)	900	1800	2500	3100	4000
Gripping Force (Max. Kgf.)	1500	5000	6800	9500	12500



For Order Code,
Please See **Page No.21**

Technical Specifications



Chuck Size	125mm	165mm	200mm	200mm	250mm	250mm	315mm	315mm
A	125	170	210	210	254	254	315	315
B	105	140	170	170	220	220	220	300
C	82.6	104.8	104.8	133.4	133.4	171.4	171.4	235
Taper Nose	A2-4	A2-5	A2-5	A2-6	A2-6	A2-8	A2-8	A2-11
D	M24 x 1.5	40	52	52	60	60	60	60
E	----	32	40	40	50	50	55	55
F	----	M16	M20	M20	M20	M20	M24	M24
G	63.513	82.563	82.563	106.375	106.375	139.719	139.719	196.869
H	52	78.5	82	82	94	94	107	107
J	7	4	4	4	5	5	5	5
K	3 x M10	6 x M10	6 x M10	6 x M12	6 x M12	6 x M16	6 x M16	6 x M18
M	M8	M10	M12	M12	M12	M12	M14	M14
N	57	72	87	87	100	100	107	107
O	40	50	60	60	70	70	70	70
P	118	140	166	163	173	171	179	180
R	5	5	5	5	5	5	5	5
S	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
U	10	12	14	14	16	16	18	18
V	25	32	37	37	40	40	50	50
W	14	15	15	16	16	18	18	20

Note: Serrations 1.5 x 60° are on request.

Max. RPM	3000	3800	3100	3100	2800	2800	2300	2300
Jaw Stroke (Per Jaw)	8	9	9.2	9.2	11.6	11.6	11.6	11.6
Plunger Stroke (Max.)	19	20	20	20	25	25	25	25
Draw Bar Pull (Max. Kg.)	900	1800	2500	2500	3100	3100	4000	4000
Gripping Force (Max. Kg.)	1500	5000	6800	6800	9500	9500	12500	12500

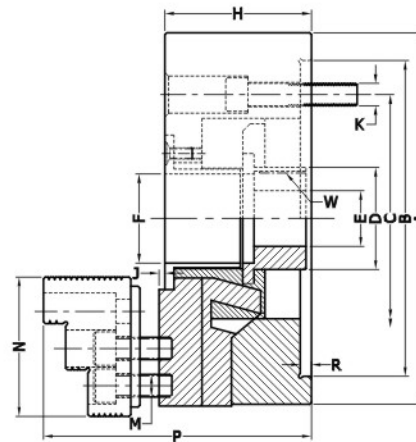
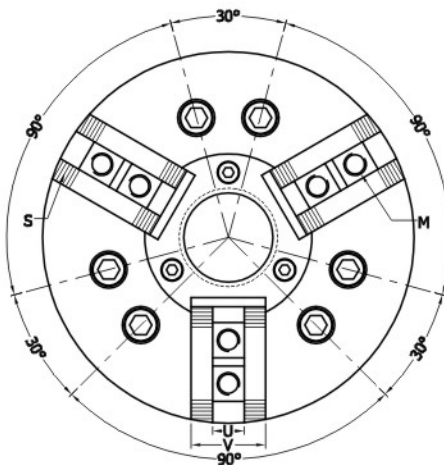


Type 7300 Power Chuck Open Center



Technical Specifications

For Order Code,
Please See **Page No.21**



Dimensional Data

Chuck Size	135mm	165mm	200mm	250mm	315mm
A	135	170	210	254	315
B H6	110	140	170	220	220
C	82.6	104.8	133.4	171.4	171.4
D	47	60	66	84	102
E	12	20	30	45	50
F	33	45	52	68	90
H	60	80	91	110	110
J	2.5	3.5	6	5	5
K	3 x M10	6 x M10	6 x M12	6 x M16	6 x M16
M	M8	M10	M12	M12	M14
N	57	72	87	100	107
P	97	128	148	159	172
R	4	5	5	5	6
S	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
U	10	12	14	16	18
V	23	32	37	40	50
W Max.	M40 x 1.5	M55 x 1.5	M60 x 2.0	M75 x 2.0	M88 x 2.0
Note: Serrations 1.5 x 60° are on request.					

Technical Data

Open Centre Dia	33	45	52	68	90
Max. RPM	7000	5000	5000	4200	3300
Jaw Stroke Dia	5.4	5.5	7.4	8.8	10.6
Plunger Stroke (Max.)	10	12	16	20	23
Draw Bar Pull (Max. Kgf.)	1630	2000	3100	3800	4900
Gripping Force (Max. Kgf.)	3660	5500	8350	11000	14300

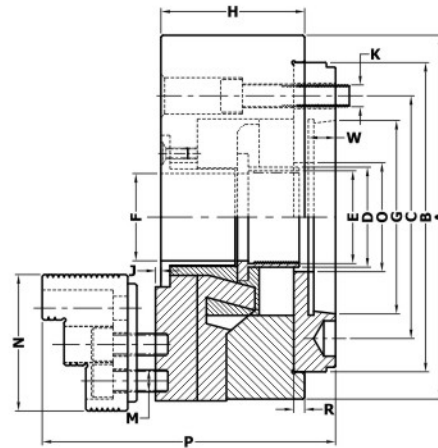
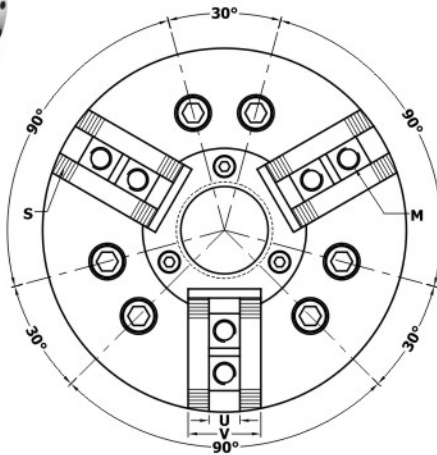


Type 7400 Power Chuck Open Center Direct Mount



Technical Specifications

For Order Code,
Please See **Page No.21**



Dimensional Data

Chuck Size	135mm	165mm	200mm	200mm	250mm	250mm	315mm	315mm
A	135	170	210	210	254	254	315	315
B	110	140	170	170	220	220	220	300
C	82.6	104.8	104.8	133.4	133.4	171.4	171.4	235
Taper Nose	A2-4	A2-5	A2-5	A2-6	A2-6	A2-8	A2-8	A2-11
D	47	60	66	66	84	84	102	102
E	12	20	30	30	45	45	50	50
F	33	45	52	52	68	68	90	90
G	63.513	82.563	82.563	106.375	106.375	139.719	139.719	196.869
H	60	80	91	91	110	110	110	110
J	2.5	3.5	6	6	5	5	5	5
K	3 x M10	6 x M10	6 x M10	6 x M12	6 x M12	6 x M16	6 x M16	6 x M18
M	M8	M10	M12	M12	M12	M12	M14	M14
N	57	72	87	87	100	100	107	107
O	50	62	68	68	86	86	104	104
P	112	143	168	165	180	178	190	192
R	4	5	5	5	5	5	6	6
S	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
U	10	12	14	14	16	16	18	18
V	23	32	37	37	40	40	50	50
W	14	15	15	16	16	18	18	20
Z Max.	M40 x 1.5	M55 x 1.5	M60 x 2.0	M60 x 2.0	M75 x 2.0	M75 x 2.0	M88 x 2.0	M88 x 2.0

Note: Serrations 1.5 x 60° are on request.

Technical Data

Open Centre Dia	33	45	52	52	68	68	90	90
Max. RPM	7000	5000	5000	5000	4200	4200	3300	3300
Jaw Stroke Dia	5.4	5.5	7.4	7.4	8.8	8.8	10.6	10.6
Plunger Stroke (Max.)	10	12	16	16	20	20	23	23
Draw Bar Pull (Max. Kg.)	1630	2000	3100	3100	3800	3800	4900	4900
Gripping Force (Max. Kg.)	3660	5500	8350	8350	11000	11000	14300	14300



Type 7500

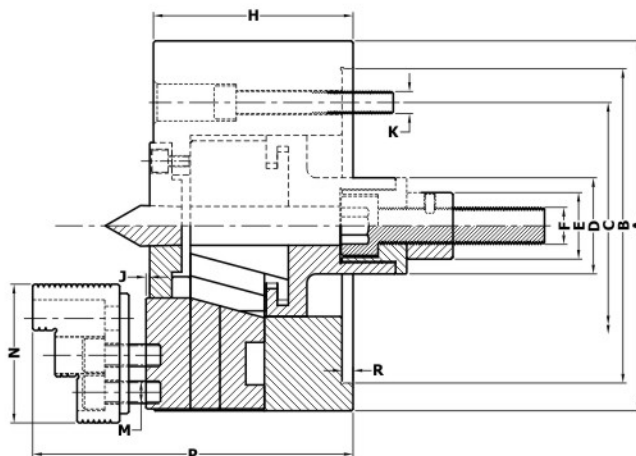
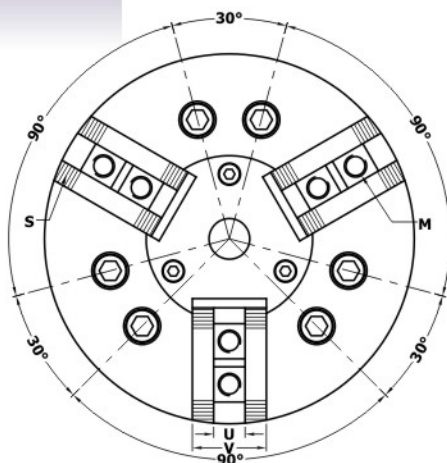
Power Chuck

Eccentric Compensation / Jaw Compensation



Technical Specifications

For Order Code,
Please See **Page No.22**



Dimensional Data

Chuck Size	165mm	200mm	250mm	315mm
A	170	210	254	315
B H6	140	170	220	220 / 300
C	104.8	133.4	171.4	171.4 / 235
D	40	52	60	60
E	32	40	50	55
F	M16	M20	M20	M24
H	100	102	113	122
J	4	4	5	5
K	6 x M10	6 x M12	6 x M16	6 x M16 / M18
M	M10	M12	M12	M14
N	72	87	100	107
P	146	166	171	175
R	5	5	5	5
S	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
U	12	14	16	18
V	32	37	40	50

Note: Serrations 1.5 x 60° are on request.

Technical Data

Max. RPM	3000	2800	2200	1800
Jaw Stroke Dia	9	9.2	11.6	11.6
Plunger Stroke (Max.)	20	20	25	25
Draw Bar Pull (Max. Kgf.)	1800	2500	3100	4000
Gripping Force (Max. Kgf.)	5000	6800	9500	12500
Jaw Compensation (on Dia.)	3.5	4	4	4



Type 7600

Power Chuck

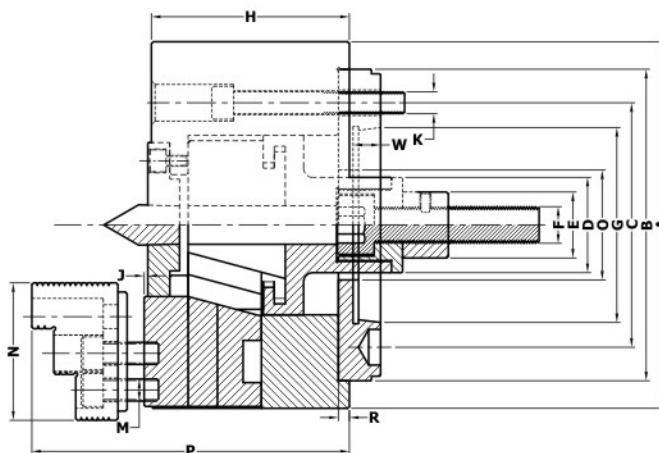
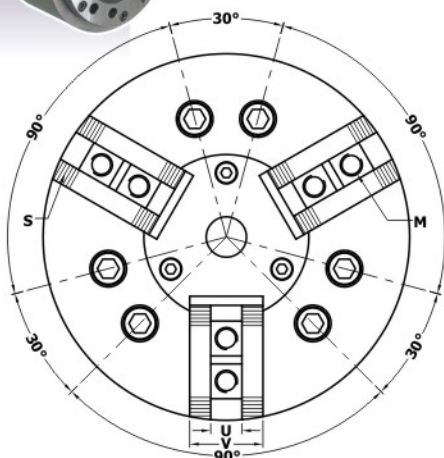
Eccentric Compensation / Jaw Compensation Direct Mount



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Technical Specifications

For Order Code,
Please See **Page No.22**



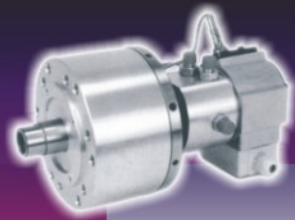
Dimensional Data

Chuck Size	165mm	200mm	200mm	250mm	250mm	315mm	315mm
A	170	210	210	254	254	315	315
B	140	170	170	220	220	220	300
C	104.8	104.8	133.4	133.4	171.4	171.4	235
Taper Nose	A2-5	A2-5	A2-6	A2-6	A2-8	A2-8	A2-11
D	40	52	52	60	60	60	60
E	32	40	40	50	50	55	55
F	M16	M20	M20	M20	M20	M24	M24
G	82.563	82.563	106.375	106.375	139.719	139.719	196.869
H	100	102	102	113	113	122	122
J	4	4	4	5	5	5	5
K	6 x M10	6 x M10	6 x M12	6 x M12	6 x M16	6 x M16	6 x M18
M	M10	M12	M12	M12	M12	M14	M14
N	72	87	87	100	100	107	107
O	50	60	60	70	70	70	70
P	162	186	183	192	190	194	195
R	5	5	5	5	5	5	5
S	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°	1/16" x 90°
U	12	14	14	16	16	18	18
V	32	37	37	40	40	50	50
W	15	15	16	16	18	18	20

Note: Serrations 1.5 x 60° are on request.

Technical Data

Max. RPM	3000	2800	2800	2200	2200	1800	1800
Jaw Stroke (Per Jaw)	9	9.2	9.2	11.6	11.6	11.6	11.6
Plunger Stroke (Max.)	20	20	20	25	25	25	25
Draw Bar Pull (Max. Kg.)	1800	2500	2500	3100	3100	4000	4000
Gripping Force (Max. Kg.)	5000	6800	6800	9500	9500	12500	12500
Jaw Compensation (on Dia.)	3.5	4	4	4	4	4	4



Type 7900

Rotary Cylinder

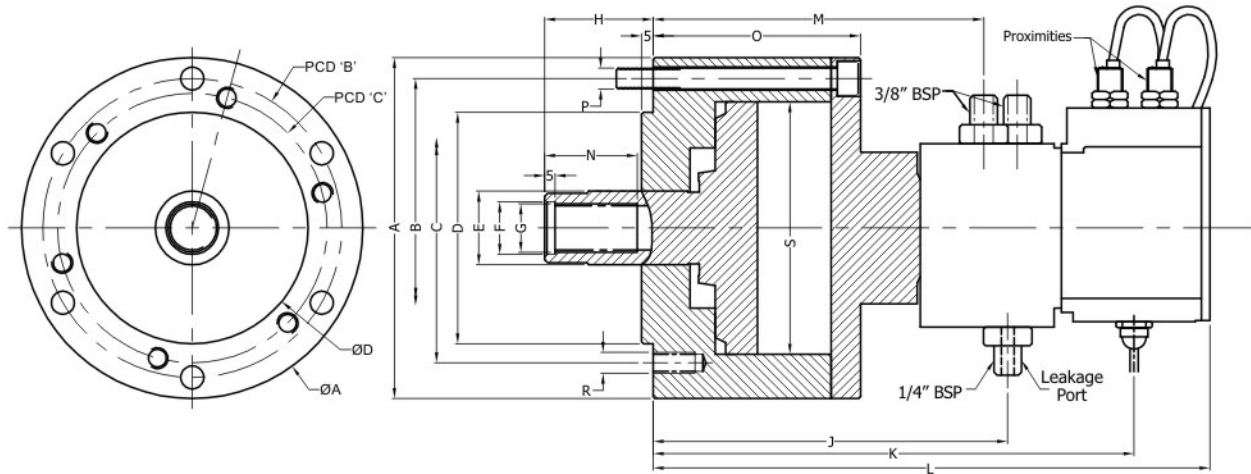
Close Centre (Non Through Hole) High Speed



Technical Specifications

For Order Code,
Please See **Page No.22**

Salient Features:
 Compact Design
 In Built Safety Mechanism
 with Safety Valves and Check Valves
 High Speed
 Dynamically Balanced



Dimensional Data

Size (Piston Dia)	125MM	150MM
A	162	190
B	142	170
C	130	130
D h6	110	110
E	35	45
F H8	25	31
G	M24 x 3.0	M30 X 3.5
H (Min. / Max.)	26 / 51	26 / 56
J	166	171
K	227	232
L	261.5	266.5
M	162	167
N	44	45
O	99	109
P	6 x M10	6 x M10
R	6 x M12	12 x M12
S	125	150

Technical Data

Size	125MM	150MM
Max. Pull (Kg.)	4000	57000
Pull Area (cm ²)	113	160
Piston Dia (mm)	125	150
Piston Travell (mm)	25	30
Max. Speed (RPM)	6000	5500
Max. Leakage at 30 Bar & 50°C (Lt./min)	0.8	0.8
GD ² Kg-m ²	0.0264	0.0530

Proximity Switches are Optional



Type 8000

Rotary Cylinder

Close Centre (Non Through Hole) Slow Speed

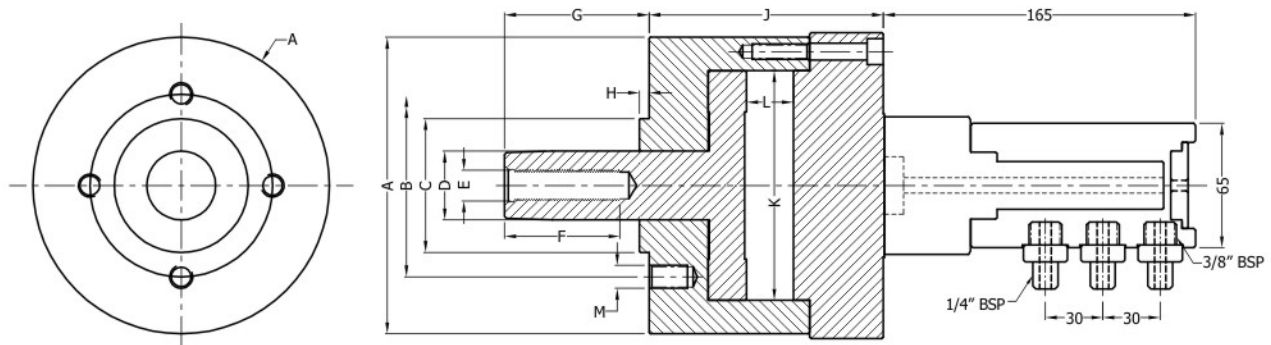


Technical Specifications

For Order Code,
Please See **Page No.22**

Salient Features:

Compact Design
Suitable for CNC and AUTO Chucking Lathes
Easy to Install



Dimensional Data

Size (Piston Dia)	90MM	120MM	160MM	200MM
A	125	160	200	240
B	95	95	145	170
C h6	70	70	95	125
D	30	36	36	36
E	M14	M16	M24	M24
F	50	50	50	60
G (Min. / Max.)	51 / 76	51 / 76	51 / 81	51 / 81
H	5	5	5	5
J	120	120	125	126
K	90	120	160	200
L	25	25	30	30
Draw bar Pull (in Kgs. At 25Kg/cm ²)	1400	2600	4800	7500
Max. Speed RPM	3000	3000	3000	3000



Power Chuck Spare Parts

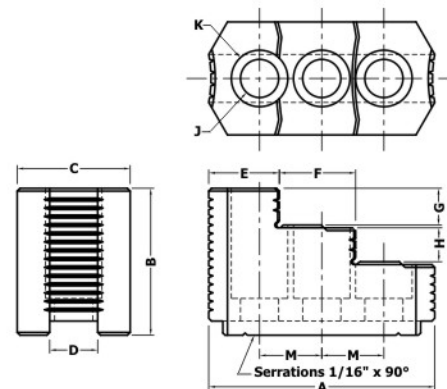
Technical Specifications



For Order Code,
Please See **Page No.24**

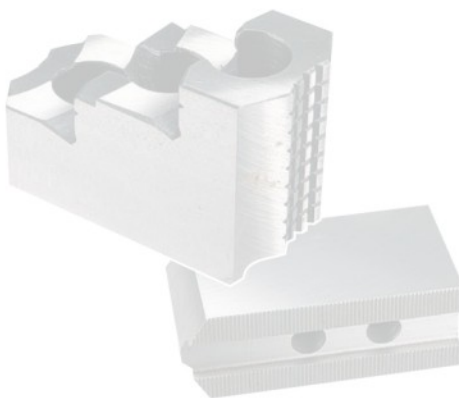
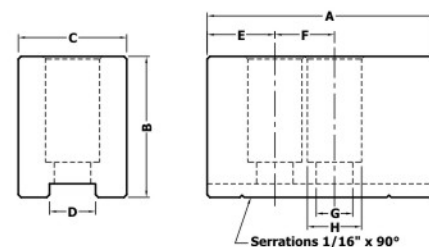
Top Hard Jaw Set for Type 7100, 7200, 7300, 7400, 7500 & 7600 Chuck

Size	125mm/135mm	165mm	200mm	250mm	315mm
A	57	72	87	100	106
B	35	45	51	54	58
C	24	32	35	40	50
D H7	10	12	14	16	18
E	18	21	27	28	32
F	20	24	31	37	38
G	8	10	12	12	13
H	8	10	11	12	13
J	9	11	13.5	13.5	15.5
K	13.5	17	19.5	19.5	23
M	14	20	25	30	30



Top Soft Jaw Set for Type 7100, 7200, 7300, 7400, 7500 & 7600 Chuck

Size	125mm/135mm	165mm	200mm	250mm	315mm
A	54	66	95	110	130
B	30	40	45	50	60
C	23	32	35	40	50
D H7	10	12	14	16	18
E	14	18	25	30	35
F	14	20	25	30	30
G	9	11	13.5	13.5	15.5
H	13.5	17	19.5	19.5	23



Section 3



Machine Tool Accessories

Sharp Machine Tool Accessories are specially designed for drilling machines, lathes, milling machines and wood working machines. The workmanship ensures high grade accuracy and maximum life. Sharp machine tool accessories are made from special material and according to international standards.



Machine-Tool Accessories



SHARP Drill Chucks with Key:

Drill chucks are specially designed for drilling machines, lathes, milling machines and wood working machines. The workmanship ensure high grade of accuracy, maximum life with powerful gripping.

- ⊕ Bodies are made from special alloy steel and taper jaw holes are precision bored and reamed.
- ⊕ Sleeves, jaws and gear rings are hardened and ground to lengthen the life of chuck.
- ⊕ Keys are made of alloy steel, hardened and Houghto black.
- ⊕ Holding capacity upto 20mm diameter bits.
- ⊕ Available mountings are UNF Threads, Jacob's Taper & DIN - 238 Taper.



High Performance Quality Products...

Machine Tool Accessories



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Type 8100 (A2 Type Back Plates for Taper Spindle Nose) DIN 55026

Size (MM)	Size (Inches)	Short Taper	Through Hole			Order Code		
160	6 1/4"	4	42			16101604		
160	6 1/4"	5	42			16101605		
200	8"	4	50			16102004		
200	8"	5	50			16102005		
200	8"	6	50			16102006		
200	8"	8	50			16102008		
250	10"	4	55			16102504		
250	10"	5	65			16102505		
250	10"	6	65			16102506		
250	10"	8	65			16102508		
315	12 1/2"	6	85			16103156		
315	12 1/2"	8	85			16103158		
315	12 1/2"	11	85			161031511		
400	15 3/4"	8	110			16104008		
400	15 3/4"	11	110			161040011		

For Technical Specifications,
Please See **Page No.39**



Type 8200 (Camlock D1 Type Back Plates for Taper Spindle Nose) DIN 55029

Size (MM)	Size (Inches)	Short Taper	Through Hole			Order Code		
160	6 1/4"	4	42			16201604		
160	6 1/4"	5	42			16201605		
200	8"	4	50			16202004		
200	8"	5	50			16202005		
200	8"	6	50			16202006		
200	8"	8	50			16202008		
250	10"	4	55			16202504		
250	10"	5	65			16202505		
250	10"	6	65			16202506		
250	10"	8	65			16202508		
315	12 1/2"	6	85			16203156		
315	12 1/2"	8	85			16203158		
315	12 1/2"	11	85			162031511		
400	15 3/4"	8	110			16204008		
400	15 3/4"	11	110			162040011		



Type 8300 (L1 Type Back Plates)

Size (MM)	Size (Inches)				Order Code			
160	6 1/4"				1630160			
200	8"				1630200			
250	10"				1630250			
315	12 1/2"				1630315			
400	15 3/4"				1630400			





High Performance Quality Products...

Machine Tool Accessories



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Type 8400 (Bayonet Type Back Plates for Taper Spindle Nose) DIN 55027

Size (MM)	Size (Inches)	Short Taper	Through Hole		Order Code		
160	6 1/4"	4	42		16401604		
160	6 1/4"	5	42		16401605		
200	8"	4	50		16402004		
200	8"	5	50		16402005		
200	8"	6	50		16402006		
200	8"	8	50		16402008		
250	10"	4	55		16402504		
250	10"	5	65		16402505		
250	10"	6	65		16402506		
250	10"	8	65		16402508		
315	12 1/2"	6	85		16403156		
315	12 1/2"	8	85		16403158		
315	12 1/2"	11	85		164031511		
400	15 3/4"	8	110		16404008		
400	15 3/4"	11	110		164040011		

For Technical Specifications,
Please See **Page No.40**



Type 8500 (L00 Type Back Plates)

Size (MM)	Size (Inches)		Order Code		
125	5"		1650125		
160	6 1/4"		1650160		
200	8"		1650200		
250	10"		1650250		

Type 8600 (L0 Type Back Plates)

Size (MM)	Size (Inches)		Order Code		
160	6 1/4"		1650160		
200	8"		1650200		
250	10"		1650250		
315	12 1/2"		1650315		

Spare Cam Lock Studs for Type 8200 Plates

Size		Order Code		
D1-4		430014		
D1-5		430015		
D1-6		430016		
D1-8		430018		
D1-11		4300111		

Spare Studs for Type 8400 Plates

Size		Order Code		
Bayonet 4		431014		
Bayonet 5		431015		
Bayonet 6		431016		
Bayonet 8		431018		
Bayonet 11		4310111		





High Performance Quality Products...

Machine Tool Accessories



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For Technical Specifications,
Please See **Page No.41 & 42**

Type 9100 (Drill Chuck with Key)

Chuck Size (MM)	Chuck Size (Inches)							
6.5	1/4"	Mounting	JT-1	JT-2 (S)	3/8"x24 TPI	1/2"x20 TPI	3/8"x24 TPI	
		Code	50106020	50106022	50206023	50206021	50306023L	
10	3/8"	Mounting	JT-2	B-12	3/8"x24 TPI	1/2"x20 TPI	3/8"x24 TPI	1/2"x20 TPI
		Code	50110031	50110035	50210033	50210034	50310033L	50310034L
13	1/2"	Mounting	JT-6	JT-6	JT-6	B-16	B-16	B-16
		Code	50113040	50313040L	50313044	50113045	50313046	50313046L
13	1/2"	Mounting	3/8"x24 TPI	1/2"x20 TPI	5/8"x16 TPI	3/8"x24 TPI	1/2"x20 TPI	5/8"x16 TPI
		Code	50213043	50213042	50213041	50313043L	50313042L	50313041L
16	5/8"	Mounting	JT-3	JT-6	B-18	5/8"x16 TPI	5/8"x16 TPI	
		Code	50116052	50116051	50116055	50216053	50316054	
20	3/4"	Mounting	JT-3	B-22	5/8"x16 TPI	3/4"x16 TPI		
		Code	50120061	50120065	50220063	50220062		



Type 9200 (Revolving Centre)

Double Bearing	MT Taper	MT-1	MT-2	MT-3	MT-4	MT-5	
	Code	5040201	5040202	5040203	5040204	5040205	
Triple Bearing	MT Taper	MT-1	MT-2	MT-3	MT-4	MT-5	
	Code	5050301	5050302	5050303	5050304	5050305	



Type 9300 (Reduction Sleeve)

Size	MT 1-2	MT 1-3	MT 2-3	MT 1-4	MT 2-4	MT 3-4	
Code	5060102	5060103	5060203	5060104	5060204	5060304	
Size	MT 1-5	MT 2-5	MT 3-5	MT 4-5			
Code	5060105	5060205	5060305	5060405			



Type 9400 (Arbors)

Size	JT-1	JT-2	JT-6	JT-3	B-12	B-16	B-18	B-22
MT-1	5070101	5070102			5070112	5070116		
MT-2	5070201	5070202	5070206	5070203	5070212	5070216	5070218	5070222
MT-3		5070302	5070306	5070303		5070316	5070318	5070322
MT-4			5070406	5070403		5070416	5070418	5070422



Type 9500 (Dead Centre)

Size	MT-1	MT-2	MT-3	MT-4	MT-5		
Code	5080101	5080102	5080103	5080104	5080105		

Type 9600 (Extension Sleeves)

Size	MT 1-1	MT 2-1	MT 3-1	MT 4-1	MT 5-1	MT 1-2	MT 2-2
Code	5090101	5090201	5090301	5090401	5090501	5090102	5090202
Size	MT 3-2	MT 4-2	MT 5-2	MT 2-3	MT 3-3	MT 4-3	MT 5-3
Code	5090302	5090402	5090502	5090203	5090303	5090403	5090503
Size	MT 3-4	MT 4-4	MT 5-4	MT 4-5	MT 5-5		
Code	5090304	5090404	5090504	5090405	5090505		





High Performance Quality Products..



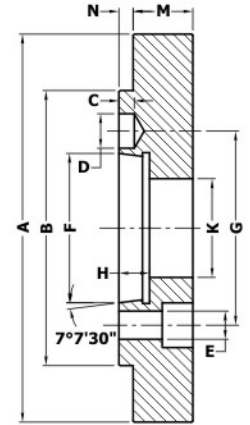
Back Plates

Technical Specifications

For Order Code,
Please See **Page No.36**

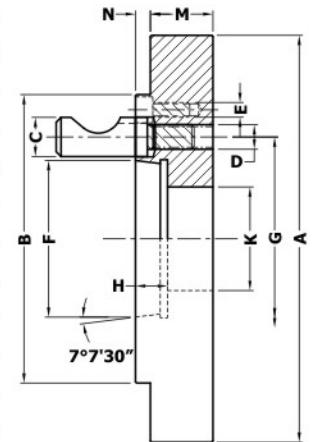
Type 8100 (A2 Type Back Plates for Taper Spindle Noses) DIN 55026

Spindle Nose	A2-4			A2-5			A2-6			A2-8				A2-11	
Size	160mm	200mm	250mm	160mm	200mm	250mm	200mm	250mm	315mm	200mm	250mm	315mm	400mm	315mm	400mm
A	160	200	250	160	200	250	200	250	315	220	250	315	400	315	400
B	108	108	108	133	133	133	165	165	165	210	210	210	210	280	280
C	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	8	8	8	8	10	10
D	14.7	14.7	14.7	16.3	16.3	16.3	19.45	19.45	19.45	24.2	24.2	24.2	24.2	29.4	29.4
E	12	12	12	12	12	12	14	14	14	18	18	18	18	20	20
F	63.513	63.513	63.513	82.563	82.563	82.563	106.375	106.375	106.375	139.719	139.719	139.719	139.719	196.869	196.869
G	82.6	82.6	82.6	104.8	104.8	104.8	133.4	133.4	133.4	171.4	171.4	171.4	171.4	235	235
H	13	13	13	15	15	15	16	16	16	18	18	18	18	20	20
K (Min)	42	50	55	42	50	65	50	65	85	50	65	85	110	85	110
M	28	30	30	28	30	32	30	35	35	35	35	35	35	35	35
N	5	5	5	6	6	6	8	8	8	10	10	10	10	10	10
No. of 'E' Holes	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4



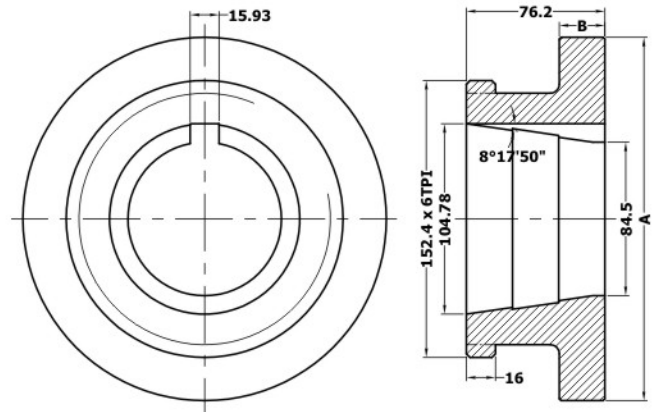
Type 8200 (D1 Type Back Plates for Taper Spindle Noses) DIN 55029

Spindle Nose	D1-4			D1-5			D1-6			D1-8				D1-11	
Size	160mm	200mm	250mm	160mm	200mm	250mm	200mm	250mm	315mm	200mm	250mm	315mm	400mm	315mm	400mm
A	160	200	250	160	200	250	200	250	315	225	250	315	400	315	400
B	117	117	117	146	146	146	181	181	181	225	225	225	225	298	298
C	15.90	15.9	15.9	19	19	19	22.2	22.2	22.2	25.4	25.4	25.4	25.4	30.2	30.2
D	M10x1.0	M10x1.0	M10x1.0	M12x1.0	M12x1.0	M12x1.0	M16x1.5	M16x1.5	M16x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M22x1.5	M22x1.5
E	M6x12	M6x12	M6x12	M6x12	M6x12	M6x12	M8x12	M8x12	M8x12	M8x12	M8x12	M8x12	M8x12	M8x12	M8x12
F	63.513	63.513	63.513	82.563	82.563	82.563	106.375	106.375	106.375	139.719	139.719	139.719	139.719	196.869	196.869
G	82.6	82.6	82.6	133.4	133.4	133.4	133.4	133.4	133.4	171.4	171.4	171.4	171.4	235	235
H	13	13	13	15	15	15	16	16	16	18	18	18	18	20	20
K	42	50	55	42	50	65	50	65	85	50	65	85	110	85	110
M	28	30	30	32	32	32	33	33	38	33	33	38	38	38	40
N	5	5	5	8	8	8	12	12	12	12	12	12	12	12	12
No. of Studs	3	3	3	6	6	6	6	6	6	6	6	6	6	6	6



Type 8300 (L1 Type Back Plates)

Size	160mm	200mm	250mm	315mm	400mm
A	160	200	250	315	400
B	25	28	30	32	32





High Performance Quality Products..



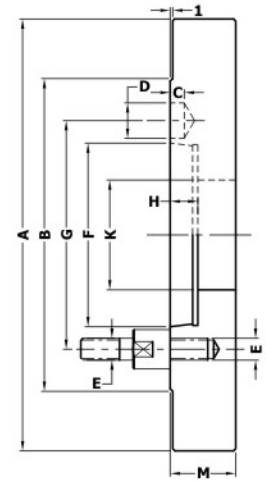
Back Plates

Technical Specifications

For Order Code,
Please See **Page No.37**

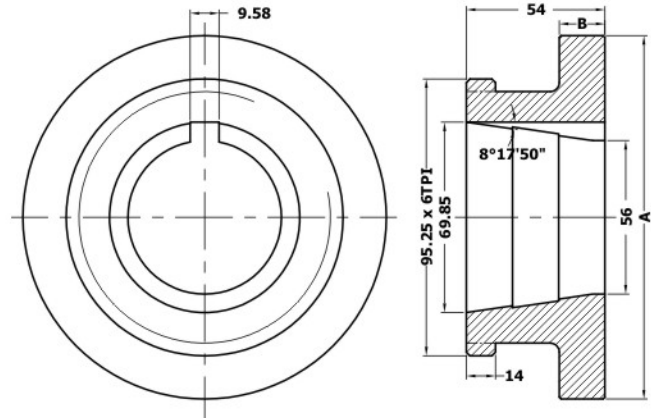
Type 8400 (Bayonet Type Back Plates for Taper Spindle Noses) DIN 55027

Spindle Nose	4			5			6			8				11	
Size	160mm	200mm	250mm	160mm	200mm	250mm	200mm	250mm	315mm	200mm	250mm	315mm	400mm	315mm	400mm
A	160	200	250	160	200	250	200	250	315	220	250	315	400	315	400
B	112	112	112	135	135	135	170	170	170	220	220	220	220	290	290
C	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	8	8	8	8	10	10
D	14.7	14.7	14.7	16.3	16.3	16.3	19.45	19.45	19.45	24.25	24.25	24.25	24.25	29.4	29.4
E	M10	M10	M10	M10	M10	M10	M12	M12	M12	M16	M16	M16	M16	M20	M20
F	63.513	63.513	63.513	82.563	82.563	82.563	106.375	106.375	106.375	139.719	139.719	139.719	139.719	196.869	196.869
G	85	85	85	104.8	104.8	104.8	133.4	133.4	133.4	171.4	171.4	171.4	171.4	235	235
H	13	13	13	15	15	15	16	16	16	18	18	18	18	20	20
K (Min)	42	50	55	42	50	65	50	65	85	50	65	85	110	85	110
M	33	33	33	35	35	35	40	40	40	45	45	45	45	50	50
No. of 'E' Studs	4	4	4	4	4	4	4	4	4	4	4	4	4	6	6



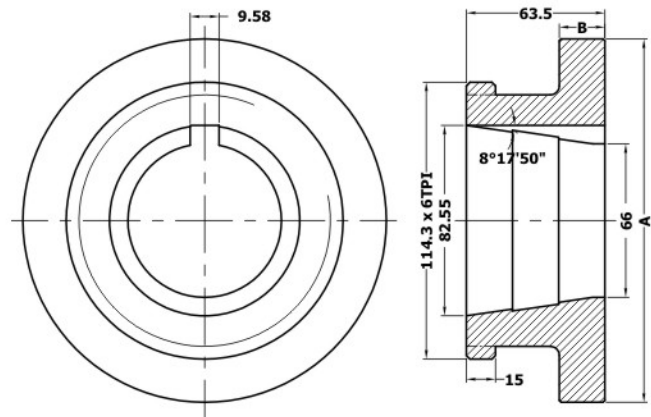
Type 8500 (L00 Type Back Plates)

Size	125mm	160mm	200mm	250mm
A	125	160	200	250
B	20	22	25	28



Type 8600 (L0 Type Back Plates)

Size	160mm	200mm	250mm	315mm
A	160	200	250	315
B	25	28	30	32





High Performance Quality Products..



Drill Chuck And

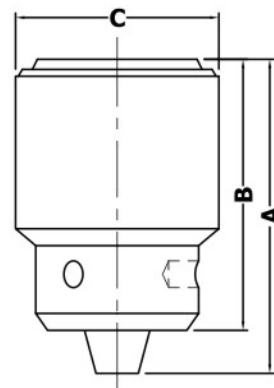
Technical Specifications

Revolving Center

For Order Code,
Please See Page No.38

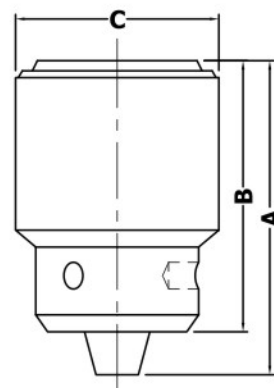
Type 9100 Drill Chucks with Key (Heavy Duty)

Capacity	0.5 - 6.5mm				1.5 - 10mm				
Mounting	JT-1	JT-2(S)	3/8"x24 TPI	1/2"x20 TPI	JT-2	B-12	3/8"x24 TPI	1/2"x20 TPI	
Code	50106020	50106022	50206023	50206021	50110031	50110035	50210033	50210034	
A	53	56	53	56	77	64	64	64	
B	42	46	42	46	65	52	52	52	
C	34	34	34	34	46	38	38	38	
Wt. in (Kgs)	0.125	0.190	0.125	0.185	0.405	0.225	0.225	0.225	
Capacity	1.5 - 13mm								
Mounting	JT-6	JT-6	B-16	B-16	3/8"x24 TPI	1/2"x20 TPI	5/8"x16 TPI		
Code	50113040	50313044	50113045	50313046	50213043	50213042	50213041		
A	89	77	89	77	77	77	89		
B	70	65	70	65	65	65	70		
C	52	46	52	46	46	46	52		
Wt. in (Kgs)	0.675	0.405	0.675	0.405	0.405	0.390	0.680		
Capacity	3 - 16mm				5 - 20mm				
Mounting	JT-3	JT-6	B-18	5/8"x16 TPI	5/8"x16 TPI	JT-3	B-22	5/8"x16 TPI	3/4"x16 TPI
Code	50116052	50116051	50116055	50216053	50316054	50120061	50120065	50220063	50220062
A	100	90	100	100	90	110	110	110	110
B	82	73	82	82	73	88	88	88	88
C	62	52	62	62	52	67	67	67	67
Wt. in (Kgs)	1.080	0.665	1.090	1.065	0.685	1.370	1.335	1.400	1.410



Type 9100 Drill Chucks with Key (Light Duty)

Capacity	0.5 - 6.5mm	1.5 - 10mm		1.5 - 13mm				
Mounting	3/8"x24 TPI	3/8"x24 TPI	1/2"x20 TPI	JT-6	B-16	3/8"x24 TPI	1/2"x20 TPI	5/8"x16 TPI
Code	50306023L	50310033L	50310034L	50313040L	50313046L	50313043L	50313042L	50313041L
A	50	59	59	74	74	74	74	74
B	43	48	48	60	60	60	60	60
C	30	34	34	43	43	43	43	43
Wt. in (Kgs)	0.120	0.200	0.200	0.400	0.400	0.400	0.400	0.400

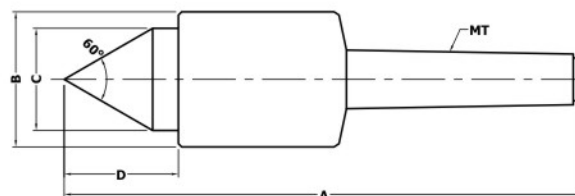


Type 9200 Revolving Center (Double Bearing)

Size	MT-1	MT-2	MT-3	MT-4	MT-5
A	120	138	158	187	226
B	42	46	46	54	61
C	25	25	30	35	40
D	28	28	32	37	43
Wt. in (Kgs)	0.530	0.690	0.820	1.350	2.600

Type 9200 Revolving Center (Tripple Bearing)

Size	MT-1	MT-2	MT-3	MT-4	MT-5
A	130	150	170	200	240
B	42	46	46	54	61
C	25	25	30	35	40
D	28	28	32	37	43
Wt. in (Kgs)	0.600	0.750	0.900	1.500	2.800





High Performance Quality Products..

Machine Tool

Technical Specifications

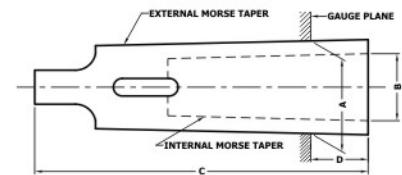
Accessories



For Order Code,
Please See Page No.38

Type 9300 Reduction Sleeve

Size	MT 1-2	MT 1-3	MT 2-3	MT 1-4	MT 2-4	MT 3-4	MT 1-5	MT 2-5	MT 3-5	MT 4-5
A	17.730	23.825	23.825	31.257	31.257	31.257	44.399	44.399	44.399	44.399
B	12.065	12.065	17.720	12.065	17.720	23.825	12.065	17.720	23.825	31.257
C	92	99	112	124	124	140	156	156	156	171
D	17	5	18	6.5	6.5	22.5	6.5	6.5	6.5	21.5
Wt. in (Kgs)	0.095	0.250	0.190	0.550	0.480	0.360	1.700	1.520	1.360	0.950

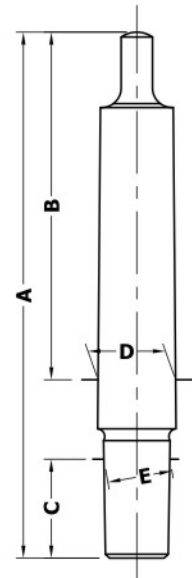


Type 9400 Drill Chuck Arbors as per DIN - 238 Drill Chuck Taper

Size	MT1 B12	MT1 B16	MT2 B12	MT2 B16	MT2 B18	MT2 B22	MT3 B16	MT3 B18	MT3 B22	MT4 B16	MT4 B18	MT4 B22
A	89	99	106.5	112	118	130	134	140	147	159	168	176
B	62	62	75	75	75	75	94	94	94	117.5	117.5	117.5
C	18.5	24	18.5	24	32	40.5	24	32	40.5	24	32	40.5
D	12.065	12.065	17.78	17.78	18.7	17.78	23.825	23.825	23.825	31.267	31.267	31.267
E	12.065	15.733	12.065	15.733	17.78	21.793	15.733	17.78	21.793	15.733	17.78	21.793
Wt. in (Kgs)	0.065	0.090	0.135	0.160	0.180	0.245	0.310	0.320	0.390	0.625	0.660	0.715

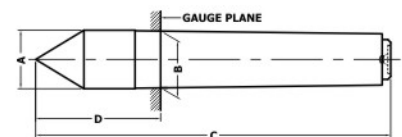
Type 9400 Drill Chuck Arbors as per Jacobs Drill Chuck Taper

Size	MT1 JT1	MT1 JT2	MT2 JT1	MT2 JT2	MT2 JT3	MT2 JT6	MT3 JT2	MT3 JT3	MT3 JT6	MT4 JT3	MT4 JT6
A	89	95	106	112	117	112	113	138	133	167	160
B	62	62	75	75	75	75	94	94	94	117.5	117.5
C	16.67	22.22	16.67	22.22	30.96	25.4	22.22	25.4	25.4	30.96	25.4
D	12.065	12.065	17.78	17.78	17.78	17.78	23.825	23.825	23.825	31.267	31.267
E	9.754	14.199	9.754	14.199	20.599	17.17	14.199	20.599	17.17	20.599	17.17
Wt. in (Kgs)	0.050	0.070	0.130	0.160	0.200	0.165	0.310	0.350	0.310	0.475	0.620



Type 9500 Dead Center

Size	MT-1	MT-2	MT-3	MT-4	MT-5
A	12.2	18	24.1	31.6	44.7
B	12.065	17.730	23.825	31.267	44.399
C	80	100	125	160	200
D	26.5	36	44	57.5	70.5
Wt. in (Kgs)	0.060	0.150	0.340	0.760	1.920

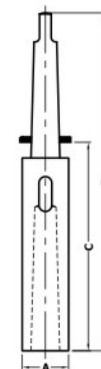


Type 9600 Extension Sleeves

Size	MT 1-1	MT 2-1	MT 3-1	MT 4-1	MT 5-1	MT 1-2	MT 2-2	MT 3-2	MT 4-2	MT 5-2
A	20	20	20	20	20	30	30	30	30	30
B	145	160	175	200	232	160	175	194	215	247
C	83	85	81	82.5	82.5	98	100	100	97.5	97.5
Wt. in (Kgs)	0.190	0.250	0.400	0.800	1.800	0.340	0.400	0.550	0.850	1.900

Type 9600 Extension Sleeves

Size	MT 2-3	MT 3-3	MT 4-3	MT 5-3	MT 3-4	MT 4-4	MT 5-4	MT 4-5	MT 5-5	
A	34	34	34	36	47	47	47	63	63	
B	196	215	240	268	240	265	300	300	335	
C	121	121	122.5	118.5	146	147.5	150.5	182.5	182.5	
Wt. in (Kgs)	0.840	1.000	1.300	2.150	1.500	1.900	2.750	3.310	4.200	





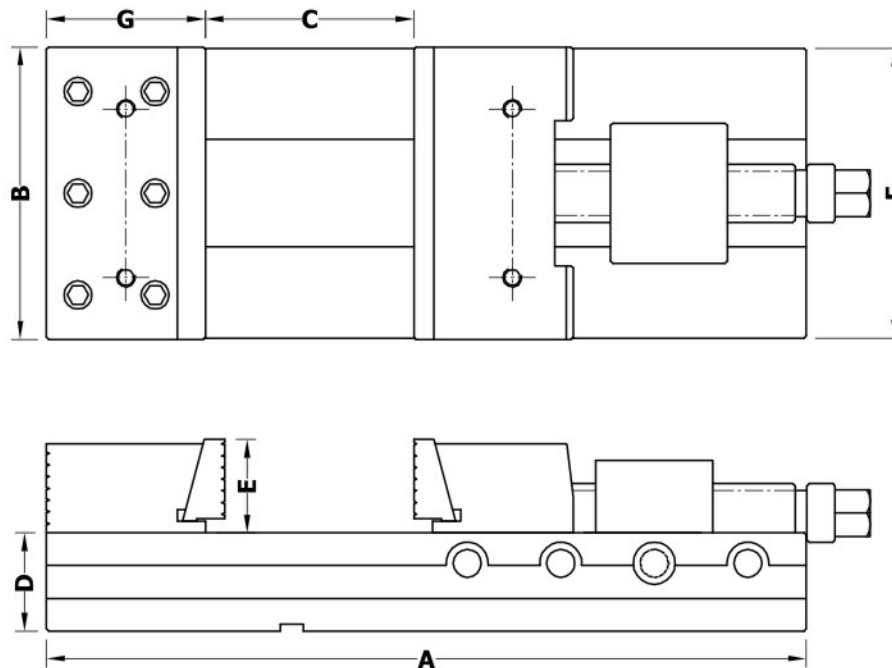
Type 10100 Precision Machine Vice



Technical Specifications

Technical Features :

- Steel Body with all wearing surfaces are hardened and ground.
- Mechanical Clamping System.
- Repetitive Gripping Accuracy is with in 0.020mm.
- Very Quick Stroke adjustment.
- Reversible fixed Jaw.
- Moveable Jaw has tilting effect which allows to clamp asymmetrical parts.
- Complete delivered with hard crank and work piece Locator.
- Additional different types of Jaws for different work pieces.



Dimensional Data

Type 10100 Precision Machine Vice								
Order Code	Size	A	B	C	D	E	F	G
5100125	125	325	125	0 - 130	42	40	123	77
5100150	150	425	150	0 - 200	51	52	148	84
5100175	175	475	175	0 - 225	58	58	173	93
5100200	200	525	200	0 - 250	66	66	198	105

SHARP Machine Vices are designed in such a way to increase production with in given tolerances of job with high gripping.

It is made of Nickle Chrome alloy steel, all the surfaces are hardened upto 60 HRC. to give more life.

All the surfaces are precision ground to give more accuracy and gripping.

Interchangeable Jaws to clamp different types of components.

▶ Warranty

Sharp products are warranted with in six months of the deliveries against any manufacturing defect.



Our Technicians and engineers plan and design special tools in close co-operation with the customers to deliver Quality Product for their manufacturing solutions.

The dimensional specifications are subject to change without any prior notice due to continuous research and development for our further improvement in our products.

The packing varies, keeping in view the optimum size and weight of each carton / wooden box.

AUTHORISED DEALER :



SHARP CHUCKS & MACHINES LTD.

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