



### INDUCTION HARDENED SHAFTING - 1045

**AISI/SAE 1045 INDUCTION HARDENED AND CHROME PLATED SHAFTING**  
INDUCTION HARDENED AND CHROME PLATED SHAFTING, SUPPLIED IN FIBRE TUBES

#### TYPICAL ANALYSIS

C.	Mn.	P.	S.	Si.
.43/.50	.60/.90	.04 MAX.	.05 MAX.	.15/.35

A COLD DRAWN, PRECISION GROUND AND POLISHED SHAFTING, SEAM FREE SURFACE FINISH IS FIRST INDUCTION HARDENED TO A CASE DEPTH OF .050" TO .090" RESULTING IN A SURFACE HARDNESS OF APPROXIMATELY ROCKWELL C 50 MINIMUM, THEREBY ENSURING THE PROPERTIES OF THE BAR. THE EXTRA HARDNESS ENSURES SUPERIOR WEAR RESISTANCE. THE BARS ARE HARD CHROMED IN THE SAME MANNER AS CHROME PLATED SHAFTING ALLOWING THE SAME ADVANTAGES OF CORROSION AND WEAR RESISTANCE, BUT WITH THE INDUCTION HARDENING, THE BARS WILL GIVE SUPERIOR SERVICE.

#### INDUCTION HARDENING

CASE DEPTH	.050" TO .090"
CASE HARDNESS	RC 50 MINIMUM SURFACE HARDNESS

#### CHROME PLATING

FINISHED THICKNESS OF CHROME	.001" MINIMUM PER SIDE
HARDNESS OF CHROME	69-71 RC
SURFACE FINISH	RMS.16 MAX.

#### TYPICAL APPLICATIONS

HYDRAULIC SHAFTING, PUMP SHAFTS, PISTON RODS, ETC.

#### MECHANICAL PROPERTIES

YIELD STRENGTH, PSI	1/2" TO 15/16" DIA.	75,000 APPROX.
	1" TO 4" DIA.	100,000 MIN.
	4-1/4" TO 6" DIA.	50,000 MIN.



(CONTINUED)

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#### SIZE TOLERANCE

ALL TOLERANCES ARE **MINUS**

<b>DIAMETER</b>	<b>TOLERANCES</b>
1-1/2" DIA. AND UNDER	MINUS 0.0015"
OVER 1-1/2" DIA. TO UNDER 2-1/2" DIA.	MINUS 0.002"
OVER 2-1/2" DIA. TO 3" DIA.	MINUS 0.0025"
OVER 3" DIA. TO 4" DIA.	MINUS 0.0035"
OVER 4" DIA.	MINUS 0.005"

**AVAILABLE IN METRIC AND IMPERIAL SIZES**